

1.0 Getting Started

Welcome to Klik & Play, the ultimate games creator! Klik & Play is all you need to create amazing Windows/Macintosh games and presentations, without having to know a thing about programming. As you'll soon discover, games creation is not just breathtakingly easy, it's also fun!

Once you've run the installation routine, you can load Klik & Play by selecting the friendly new icon from the Windows/Macintosh Desktop. To select the icon, simply press the left hand mouse button twice. You'll now be presented with the following options:



Play game

Lets you play a Klik & Play game on the screen. The package includes ten ready made games for you to enjoy.

Modify game

Provides you with a simple file selector, and allows you to load a game into Klik & Play for subsequent editing.

Create Game

Takes you into the Storyboard Editor, the first step to creating your new game.

Quit

If for any reason you do not wish to go into Klik & Play, simply click on Quit, this will take you back to the Windows/Macintosh Desktop.

1:1 Absolute Beginners

We'll now look at each of the start-up options in more detail.

Play game

Allows you to play a game from the Klik & Play gamepack. Each game is represented by a small icon on the screen.

You can load your games by simply clicking on an icon with the left mouse button. If the game you want is not on the screen, you can scroll through the list with the slider bars to the right.

The Cancel button exits the gamepack selector, and returns you back to the main Klik & Play dialogue.

Your games are played in their own windows, which can be moved around the desktop, and re-sized using the standard controls.

The Play Game options

Each game has its own menu line along the top:

Game **New Game** (or F2 from the keyboard) (Mac: ⌘ N)
 Restarts the game from the very first frame. All scores and
 number of lives and counters will be reset.

Pause (or hold down the **Ctrl** key and press **P**) (Mac: **⌘ P**)
Stops the game so you can take a break if necessary.

Players (or hold down the **Ctrl** key and press **Y**) (Mac: **⌘ Y**)
Allows you to define the player controls

Quit (or hold down the **Alt** key and press function key **F4**) (Mac: **⌘ Q**)
Exits from the game and returns you to the game selection box.

Options **Play Samples** (or hold down the **Ctrl** key and press **S**) (Mac: **⌘ S**)
 Turns the sampled sound effects on or off.

Play Music (or hold down the **Ctrl** key and press **M**) (Mac: **⌘ M**)
Toggles the music on and off

Hide the menu (or press **F8**) (Mac: **⌘ D**)
Removes the menu line from the screen

Help **How to play** (or press **F1**) (Mac: **⌘ H**)
 Displays a help file created by the author of the program.

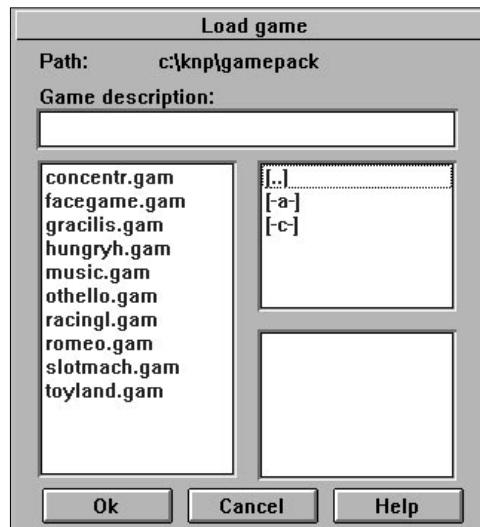
About...
A dialogue will be shown, it will inform you of who made the game and what it is called



Note that many games have a “**Panic**” option assigned to function key **F5**. This temporarily hides your game into the background, revealing whatever else is in your Windows backdrop/Macintosh Desktop. To return back to the game simply press F5 again.

Modify game

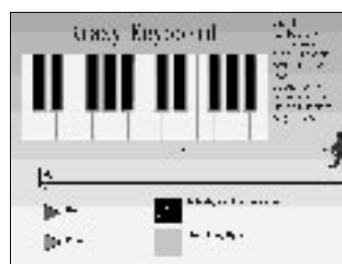
This displays a selector and allows you to pick a Klik & Play game from disk. All Klik & Play games have a “.gam” extension at the end.



As you scroll through the list, a full description of each game appears at the top of the selection box.



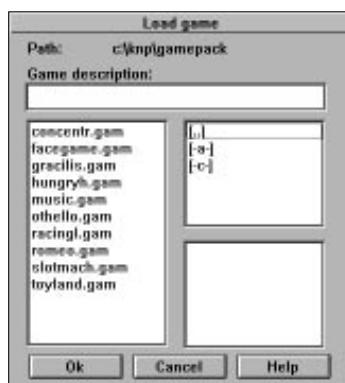
You can see what the game looks like by highlighting its filename with the mouse. A picture of the first game screen will appear in the preview area.



Loading a game from the file selector

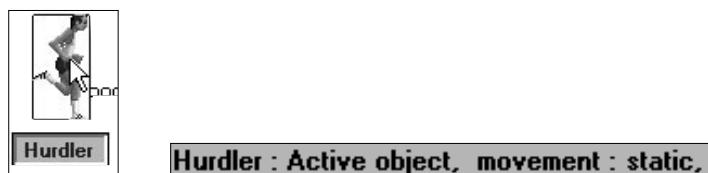
Loading a game is very simple. Just move the mouse over a filename, and double click on it with the left button.

Klik & Play will now load the game that you have selected. When the game has loaded you will be in the Storyboard Editor, which will allow you to edit the game. The following four pages will give you an introduction to the Storyboard Editor and its associated features.



Basic Principles

Klik & Play has a very useful and easy to use built in help system, you'll notice the effect whenever you move the mouse over an item. A message will pop up explaining what it's for. You'll also find additional help on the status line at the bottom of the window.



Klik & Play is split into several different sections, each handling a different part of the creation process. The first thing you will see is the Storyboard Editor.

An introduction to the Storyboard Editor



The Storyboard Editor divides your game into a number of "frames", and lets you select how they'll be displayed on the screen. You can assign each frame to either a game level, a still picture, or an animation sequence. Frames can be copied around with ease, and rearranged with a simple click of the mouse. So you can create games, slide shows, or interactive presentations, effortlessly!

Each frame is represented by a small box.

The "More..." box serves as a guide to show the next free frame in the sequence.

There are three sorts of frames to choose from

Picture frames

Hold a still picture in any of the standard PC/Macintosh formats.

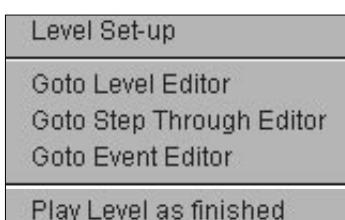
Animation frames

Displays an FLI or FLC animation sequence.

Level frames

Holds a 'game' level.

You can select frames by simply clicking on them with the right mouse button. This will display a pop-up menu like so.



Since the level options are the most important, here's a brief explanation:

Level Set-up

Sets the size of the playing area, it also allows you to enter a password for the level if you wish. Using the Level set-up option you can also enter a title name for the particular level.

Goto Level Editor

Calls up the Klik & Play Level Editor. This allows you to design your level screens, position your objects, create movement patterns, or produce stunning animation sequences. It provides a studio where you can arrange your game objects, and set up the scenery.

If you're doing a lot of editing work, you can enter this module whenever you load Klik & Play. To be able to do this, select the "Edit" menu and then click on the Preferences option and simply alter the preferences to your individual needs.

Goto Step Through Editor

Enters the Step Through Editor. The Step Through Editor plays your games, and reports back when an event occurs, such as a bat colliding with a ball. You will then be able to choose an appropriate "action" directly from the screen. For example you would be able to make the ball bounce away from the bat after the collision.

Goto Event Editor

Runs the Event Editor. This provides you with complete control over all the events that can happen in your game. It writes the "Script" which defines how your characters will interact with each other on the screen. For example you may want to give the player an extra life after he reaches a thousand points, or introduce a baddy thirty seconds after the start of the game.

Play Level

Plays the currently selected level of your game.

You will only be able to use the options Goto Step Through Editor, Goto Event Editor and Play Level as Finished when at least one frame has been edited.

You can also call up the same features from the menu line at the top of the Storyboard window. Here's a breakdown of these options:

File Holds all the options for saving and loading games. File also allows you to quit Klik & Play.

Edit Enables you to Cut and Paste objects or even whole screens. Edit also allows you to set preferences, as well as define Game and Level Setup.

Objects Provides options for choosing objects and displaying them on the screen. (Not available from the Storyboard Editor).

Game Lets you call up various parts of Klik & Play such as the Step Through

Editor and Event Editor, as well as allowing you to play the finished game.

Help Forms the gateway to the Klik & Play help menus.

To the left of the Storyboard there are two buttons

The Goto button

Displays a list of icons which allow you to jump around the Klik & Play system. We'll be explaining most of these options later. But for now, it's worth noting that:

The LEVEL option plays the selected level.

The GAME option plays the entire game.

The Tools button

Adds new levels, picture, or animation's to your game.

Creating a game

This option enters you into the Storyboard Editor, and presents you with a blank screen. You can now start creating your games immediately.

We'll be discussing how the Storyboard Editor works later on. But for now, we'll concentrate on creating a quick demonstration game to get you started.

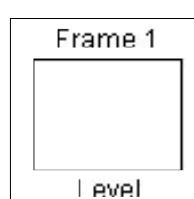
For our example, we'll bounce a ball around the screen, destroying bricks as it goes. We'll be producing a simple rebound game similar to Arkanoid.

If you are not already in Klik & Play, simply click on the Klik & Play icon and from the options displayed select "Create a Game".

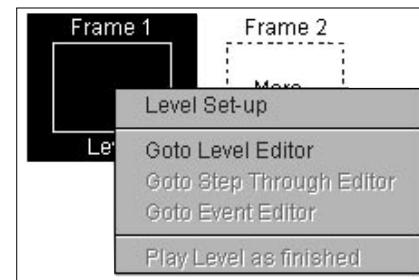
Setting the scene

You'll now need to design a background screen for your game, and position the various objects. This can be achieved from the Klik & Play Level Editor.

Select the first frame of your game with the right mouse button. It's a box with "Frame 1" situated in the top left hand corner.



A menu will appear on the screen.



Highlight the line "Goto Level Editor", and click on it with the left mouse button.

You'll now be taken to the Level Editor. This is where you begin to create your game screens.

Down the left hand side are a series of small pictures, or "Libraries". Each library holds a collection of objects for use in your games.



If you are using 640x480 resolution, you will not be able to see the whole of the playfield. So you will need to scroll the screen around using the right hand side and bottom scroll bars. So when you place down objects (especially backdrops), make sure you place them at their correct spot.

To the right, there's a large white block taking up most of the window. This is the "play area" where you will design your game and bring it to life. Along the edges, you'll also see grey holding areas used to store objects off screen.

We'll now open a library and display its contents from the editor. Let's pick the one called TOYLAND.

Click on the scroll bar to the left of the library list and drag it down (or use the down arrow to move the library selection down) until you see a picture of a cat.



Select the library with the mouse and the library will be displayed on an "Object Shelf" at the top of the screen.



Each picture holds a different object which can be added to your games.

We'll pick the background first. With the left mouse button click on the object called "Dude's room" (all objects display their names as you point at them).



and drag it onto the play area.

The moment the mouse leaves the shelf, it will be replaced by a giant picture. This is the "Dude's room" object as it will appear in your game.



Position the room over the play area, and line it up carefully with the border. When you're satisfied with the effect, click on the left button to drop it into place. Don't worry if you make a mistake. You can hold down the left button and drag this background to a new position at any time.

We'll now select the "active objects" in our game. These are the ones which will move around on the screen.

From the same library pick the "Skate Dude" object and place him on the bench like so:



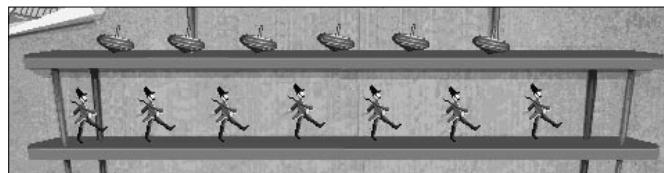
Let's add a bouncing ball to our game. Click on the "Big Ball" object and position it directly over the skateboarder's head.



Finally, we'll define our bricks. But instead of using bricks, we'll use some toy soldiers and spinning tops.

We now need to place down quite a few objects of the same type. Here's a tip: If you want to paste down several copies of the same object, drop them into position with the right mouse button (Mac users: Command + mouse click). The object will now be permanently assigned to the mouse, so you can make as many copies as you like. When you've finished, click again on the object's icon in the shelf, or hit the "Esc" key from the keyboard.

Select the "Soldier" object and position them, then select the "Spinning Top" object and position these as well. Arrange the soldiers and tops in the following pattern:



Normally, the next step would be to define some movement patterns for our objects.

Just to make life easier, we've cheated a little.

The skateboarder has already been set-up using the "eight direction movement" system. So when you test your game, you'll be able to move him around using the Joystick or cursor keys.

Similarly, we have chosen a bounce effect for "Big Ball", and defined a simple path movement for the Soldiers and Spinning tops.

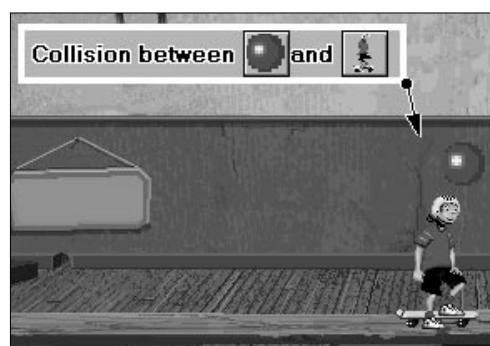
If you wanted to set up these options for yourself, you'd click on your objects with the right button, and highlight from the Movement sub-menu, choose the "Select Movement" option. You could now choose the "Eight Direction Movement", "Bouncing Ball" and "Path Movement" buttons respectively. You'd then be able to define each of your effects in turn. There's no need to worry about how this works for the moment. We'll be discussing object movements in detail in Chapter 4. This is a simple example to show you how to make a basic game, but without involving too much detail at this stage.

Adding the action

You've now created the scenery for your game and placed your actors on the stage. Let's see some action!

Click on the "Game" menu, and select the "Step Through Editor" option.

This will start your game, and test it for "events". After a second or so, the game will stop with the following message:



This message appears because Klik & Play has discovered that the ball has collided with the Skateboarder. Klik & Play will now ask you to decide what should happen at this point in the game. You can enter these options from the Step Through Editor.

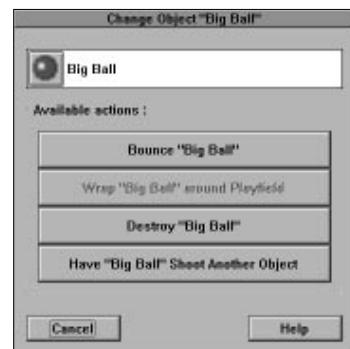


This allows you to assign one or more "actions" to each event in your game. In our present situation, we need to tell Klik & Play what action should be taken when the ball hits the skateboarder. Let's make the ball bounce and play an "Ouch" sound.

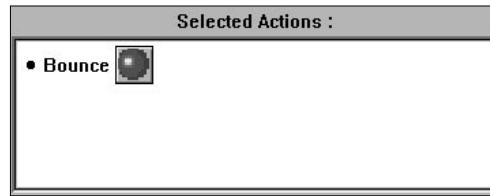
First, select the ball by pressing the left hand mouse button.



A dialogue box will be displayed on the screen, so that you can select an actions for this ball.



Click on the Bounce "Big Ball" button to bounce the ball against the character. You'll now be returned to the Step Through Editor, with the new action stated in the "Selected Actions" box.



Next, we'll add the sound effect. Click on the "Loudspeaker" icon.

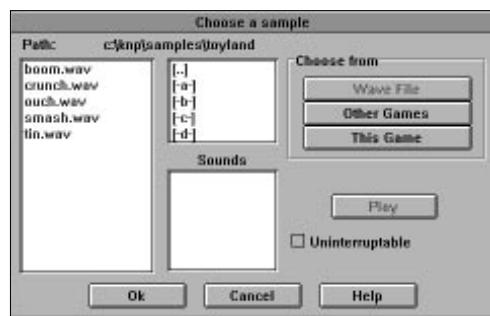


A sound selector will pop-up.



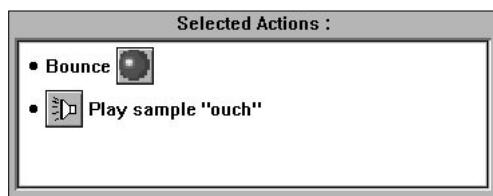
Not all options
are available in
the Mac selector

Double click on the TOYLAND directory to access the sounds we've provided for this game:



You should then click on the "OUCH.WAV" sound file and select "OK".

This sound will be immediately added to the action list.



Now we've told Klik & Play what to do whenever the ball collides with the Skate Dude, we'll resume the game by clicking on the "Continue Game" icon.



The ball will bounce off the skateboarder's head and collide with the soldier above. So straight away, we'll have another set of actions to define. For this situation, we need to add actions to:

- 1. Destroy the soldier**
- 2. Bounce the ball**
- 3. Make a bounce sound**

Here's the procedure:

To Destroy the soldier:

Click on the "Soldier" icon.



Select the "Destroy Soldier" button.



To Bounce the ball:

Choose the "Big Ball" icon.



Click on "Bounce Big Ball"

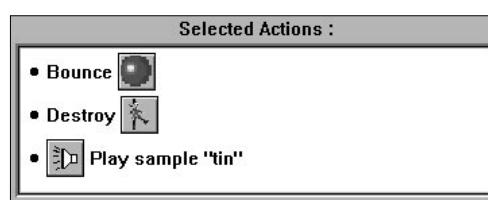
To play a sound sample:

Select the "Play sound sample" icon.



Select "Tin.Wav" from the Toyland directory.

When you're finished, you should have the following action list:



As before, click on "Continue game", and test your game.

You've now set-up two "events" in your game. In practice, most games have dozens of these events. Let's define a few more. Since we've no way of knowing how the ball will bounce, we obviously can't guess what's going to happen next. So here's a list of the possible events, along with the recommended actions.

Collisions between the ball and play area boundary

Click on the "Big Ball" from the Step Through Editor screen, and choose the Bounce "Big Ball" option.

Note: Any objects that have ball movement will have a bounce action already defined for this situation. So you don't need to set this event up really.

Select "Continue game" to proceed.

Collisions between the ball and the spinning top.

Select the spinning top icon, and add the same actions you defined for the Soldier.

Click on "Continue game".

Collisions between the Skateboarder and play area boundary

Select the skateboarder, and choose Bounce "Skateboarding Dude" Click on "Continue game"

Once you've added all these events, select the "Stop" icon, or press the "Esc" key to return to the Step-Through Editor.

When you select "Stop" you are stopping the game after a certain time and so Klik & Play regards this as an event and you will be returned to the Step Through Editor.

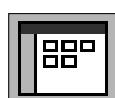
You can now play through the entire game by clicking on the "Restart game" icon.



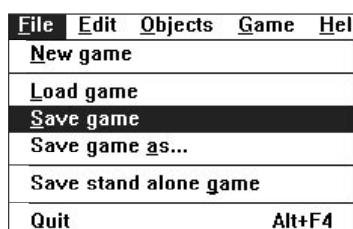
The game will play on the screen continuously, with the ball bouncing around, and destroying objects as it collides with objects, as well as playing sound samples. As you can see, creating games is really easy with Klik & Play. All you have to do, is Klik on the options, and Play your games.

We'll be expanding this demonstration game later on, so it's good idea to save it on the disk.

Click on the "Stop" icon with the mouse, and select the GOTO button from the Step Through Editor. Choose the "Goto Storyboard Editor" icon, it looks like this:



When the Storyboard Editor reappears, call up the "File" menu from the top of the window, and highlight the "Save Game" option.



The following selector will appear:



 Not all options are available in the Mac selector

Type in a name of your choice for the game, and click on "OK". Choose a name like "Demo1.gam".

Your demonstration game will now be saved on the disk, ready for future use.

And that's about it! The rest of this manual contains detailed instructions for creating the various parts of your games. Have fun!

1.2: The Basics of Klik & Play

A few years ago, you needed to be an expert in order to write a computer game. But these days are finally over! Klik & Play provides you with everything you need to create terrific games in the comfort of your own home. Klik & Play allows anybody to create a game, very easily and very quickly.

Klik & Play is totally different to anything you've seen before, and it's easy to get overwhelmed by the many features of Klik & Play, so the following chapter basically describes how to use the major features, and what each of these features is responsible for.

Help is at hand

Klik & Play contains a built-in help system, it explains each option as you are using it. This "Handy Hint" feature presents you with a helpful message whenever you move the mouse over an object or control icon.



If you get stuck, there's even more information on the status line.

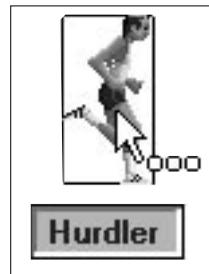
Hurdler : Active object, movement : static,

A standard Windows/Macintosh Help menu is also available to give you guidance on all the available options. So you're never more than a klik away from assistance.

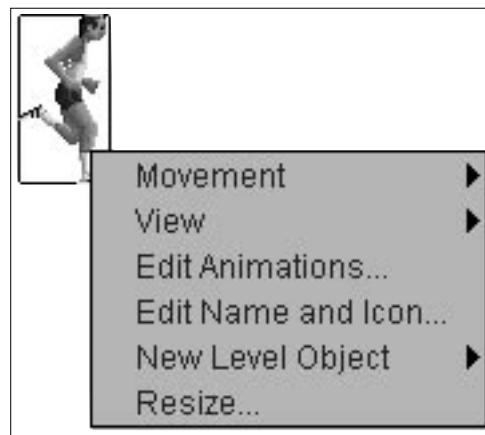
Using the mouse

All options are selected in the same general way.

The left mouse button calls up a command, or highlights a component in your game.



The right button displays a pop-up menu so you can edit the component on the screen. (The right button can be emulated by double clicking with the left mouse button).



Klik & Play Overview

Klik & Play is split into several sections, each dealing with a specific part of the games creation process.

The Storyboard Editor

This is the first thing you'll see when you enter Klik & Play. It's used to define the structure of your game, and sets up your various levels and start-up screens.



Each game consists of a number of "frames" containing either a level, a picture, or an animation.



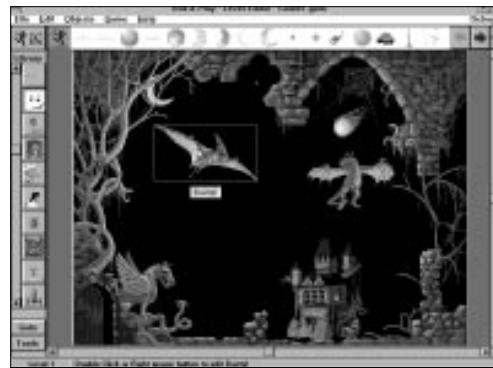
If you are designing a brand new game, to edit the first frame simply click on frame 1 with the right hand mouse button and select the option "Goto Level Editor" from the resulting menu.

However, if you have already created a game consisting of several frames and wish to create a new frame, simply click on the "Tools" button and select the option "Add a new level to the game", you can then insert this frame into the desired place. You can also move frames around, import pictures or load .flc or .fli animation files.

The Level Editor

The Level Editor lets you define individual game screens, and set up the individual objects in your games. These objects are used for things like spaceships, racecars,

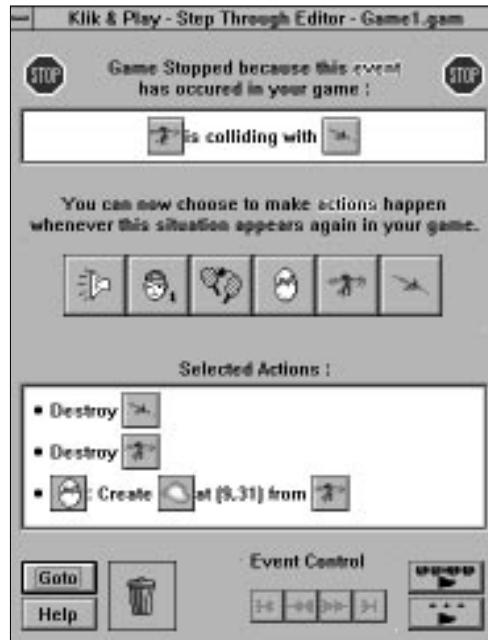
or obstacles. They can be dragged into place, and set in motion using a range of simple menu options. Depending on the type of object, you can add movement patterns, possessions, or animation sequences with ease.



Once you've chosen your objects, you'll be ready to define how they will interact. This is the job of the Step Through Editor and the Event Editor.

The Step Through Editor

The Step Through Editor plays your game, and stops whenever an event occurs. Typical events include two objects colliding, or the player pressing the fire button. Each event can be associated with a number of different actions in your game. These actions allow you to explode your objects, or launch off a missile as required. You can now continue from where you left off, and check for the next event in your game. Before you know it, your game will be complete.



The Event Editor

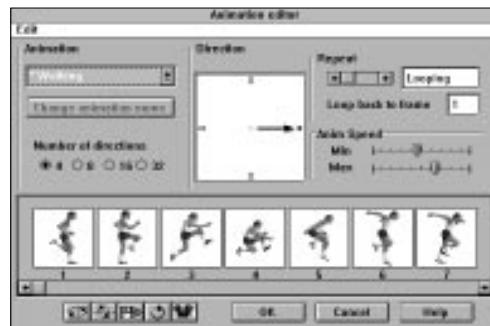
With this editor you can set-up events and actions before they have actually occurred within your game. There are more powerful events and actions that can be chosen from this editor, and once you've got the hang of how it operates you'll spend most of your time creating your games here.



The Animation Editor

This controls the way your objects will be displayed on the screen. Most Klik & Play objects can be flipped through a complex animation sequence, so they can change

shape, or bounce around the display at will. You can choose the animation, change the speed, rotate it, or generate fancy zoom/reduce effects, all using a simple dialogue box.



The Picture/Icon Editor

The Picture/Icon editor allows you to draw new objects for your games. Each object consists of one or more screen images, along with a small icon used to identify it within Klik & Play. Both can be edited to your precise requirements.



Icons and Menus

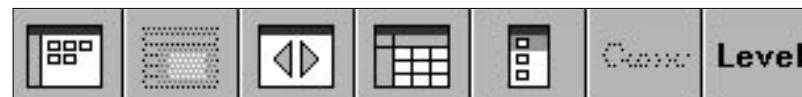
We'll now have a look at how Klik & Play is controlled. There are several possibilities.



Icons: These are small pictures which can be clicked with the left mouse button to perform a command.

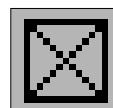
Command Icons

are found in control panels, and dialogue boxes. They call up a specific option from the Klik & Play system.



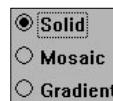
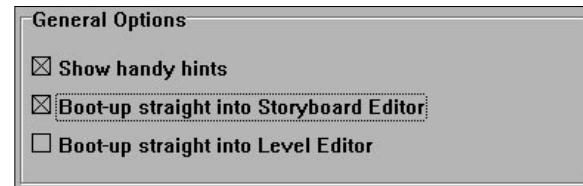


Buttons are command icons which contain text, rather than pictures. Good examples are "Goto" which jumps around the Klik & Play system, and "Tools" which lets you create an object or level.



Checkmarks

turn features ON or OFF. When they're selected, an X appears in the box.



Radio buttons

are arranged in groups, and work in a similar way to checkmarks. They toggle a feature through one of a number of alternatives At any time, only a single radio button can be turned ON in each group.



Object Icons

appear in the Object Shelf, and represent a single object which can be positioned in your game.



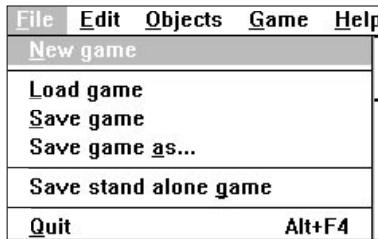
Library icons

can be found in the Library list. Each icon contains a collection of ready made objects for your games.

Menus: These are lists of headings which can be selected using the mouse. Klik & Play uses three sorts of menus:

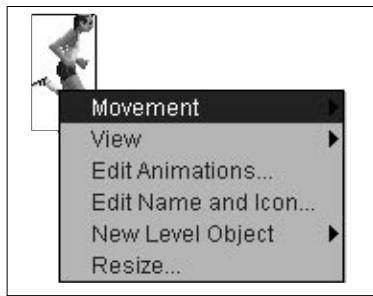
Fixed Menus

appear as a list of titles along the top of the current window. You can call them up by simply clicking on the title with the left mouse button. The "File" menu is a typical example. It contains all the commands for loading and saving your games on the disk. It's available from the Storyboard, Level, and Event editors



Pop-Up Menus are displayed when you select something with the right mouse button (or double click with the left button). They are used to edit objects, events, animations, or even entire levels.

If a menu item has several possible options, a Sub-menu will appear. Sub-menus are indicated by a ► character to the right of the item.



Dialogue boxes:

are collections of Command Icons, Checkmarks and Buttons arranged together in a box. Typical options are:

“OK” accepts the current settings. Simply click on ‘OK’ with the left mouse button.

“Cancel” aborts the selection and exits from the dialogue box.

“Help” calls up the Klik & Play help system for advice.

The Mouse modes

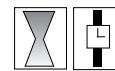
The mouse pointer is used for a variety of different purposes. In order to avoid confusion, the pointer changes shape to reflect the current mode.

Here's a list of the available mouse modes:

Standard modes



Arrow This is the default. It's used to select Klik & Play commands, and call up the various menus.



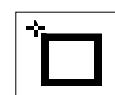
Hourglass/watch If Klik & Play is busy, the standard Windows hourglass/Macintosh clock will be displayed. You'll need to wait until it changes back to the arrow again before entering any more commands.

Selection Indicates that the mouse is over an item which can be controlled from a pop-up menu. When the mouse is in this state, you simply press the right button to display the pop-up menu.



Positioning

This appears when you've selected an object from the Object shelf. You can now drag your object over the play area and drop it into position. If you don't want to use the object you've selected you can abort from this mode by hitting the "Esc" key.

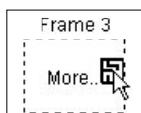


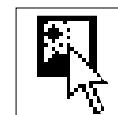
Quick Backdrop

In this case, Klik & Play is ready to drop a Quick backdrop object into position. Move it over the play area, and click on the left mouse button to fix it into place.

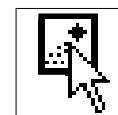
Level

The frame pointer is displayed when you create a new Level frame from the Storyboard. You can now move the mouse over the destination, and click once to insert it into position. Note that "More..." box is just a place marker. It represents the next frame in the sequence.



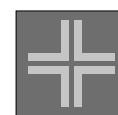
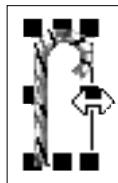


Picture This appears when you add a new picture frame to your game.



Animation
This appears when you add a new animation to your game.

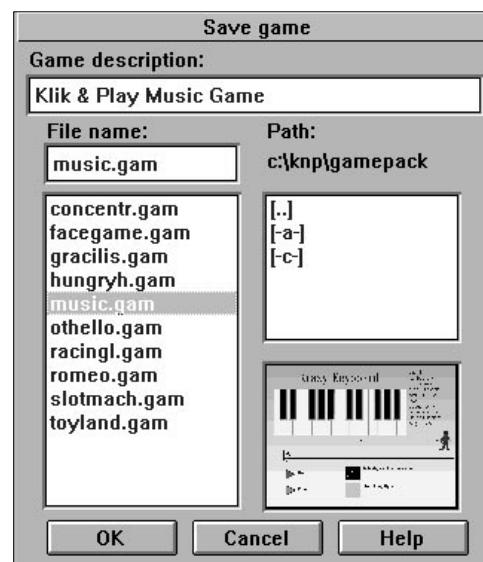
Resizing The resize arrows appear when you're changing the size of an object or window.



Grab The grab pointer is used by the import feature. When it appears, you can select an area by moving the mouse over the top left corner, and dragging a box around it with the left button.

The Klik & Play File Selector

Klik & Play provides you with a simple selection box which allows you to effortlessly choose your files from the disk.



**1. The Game Description**

Holds an expanded description of your game. Don't confuse this with the filename. The game description is there to remind you what your game is about, before you decide to load. It's got nothing to do with how your game is actually stored on the disk.

2. The Filename

If you're saving a file, this box will allow you to enter its name. You can edit this name by simply clicking on the filename and typing in a new one. Remember that game file have a ".GAM" extension.

**3 Path**

This shows the directory used by the file list.

**4 The File List**

Lists all the files in the current directory. Klik & Play game files have the extension ".GAM". You can select a file by highlighting it with the mouse. If you're in a hurry, you can load your file straight into memory by double clicking on the left button.

5. The Scroll bars

Let you slide the file list through the directory.

**6. The Directory window**

Chooses the drive or directory you are using for your files.

[C]

Represents one of your drives. Double click here to list all the all files on this drive.

[Name]

Holds the name of a directory on the disk. Select it to open up the directory, and display any files it contains.

[..]

Moves you back one place through the directory structure. The file list will now be updated to show the available files.

7. The Preview Window

Displays a small picture of the first screen in the selected game. You can use this feature to identify your game before you load it from the disk. It's a valuable memory jogger if you forget what the filename means.

2.0: The Storyboard Editor

Overview

Klik & Play is more than just a games creator. It can also produce wonderful presentations. You can use it to generate product tutorials, slide shows, photo albums. The possibilities are endless!

If you're interested in games, you'll be able to create multi-level masterpieces, with professional looking credit screens, and animation sequences.

The key to these effects, is the Storyboard Editor. This defines the order in which your game works. Each level is treated as if it were a single frame in an animation sequence. Levels can be cut, pasted, and moved using simple options from an on-screen menu.

The Storyboard Editor Screen

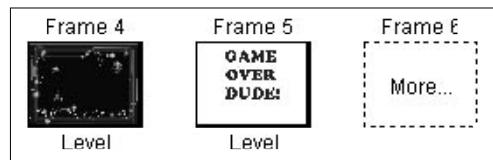
The Editor screen is divided into three main areas.

1. The Storyboard

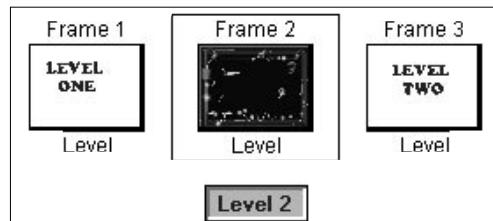
The Storyboard is a large window containing a list of frames which will be used in your game. Each frame can contain either a level, a picture, or an animation. When you play a game, Klik & Play will automatically run the first frame. You'll now be able to run through the frames in sequence as the game progresses.



The "More..." frame serves as a place marker. It indicates the first spare frame in the storyboard.



You can select these frames by clicking on them with the left mouse button.



There's also a pop-up menu, which is available by either selecting the frame with the right mouse button, or double clicking on it with the left button.

2. The Command Icons

Goto Forms a gateway to the other parts of the Klik & Play system. You can select an icon to call up the Level Editor, Event Editor, or Step Through Editor as you need them. You can also play the current game, straight from the Storyboard Editor.

Tools Brings up a toolbar which lets you insert a new frame into the storyboard. You can use it to add a level, picture, or animation to your game.

3. The Menus

We'll be discussing Klik & Play's menus in section Section 6.0. But here's a quick summary:

File Holds a series of options for loading and saving your games on the disc. Save your games often to avoid mistakes.

Edit Provides you with a range of cut and paste features which let you copy entire levels between frames. It also allows you to set up game and level options and it gives you access to the Storyboard's preferences.

Game Allows you to jump directly to another part of the Klik & Play system.

Help A detailed guide on how to use any particular aspect of Klik & Play.

Editing a level

Whenever you enter Klik & Play, an empty level is created for your games. You can edit this level using a series of options from the "Game" menu.

This provides you with the following options:

Level Editor	Calls up the Level Editor
Step Through Editor	Runs the Step Through Editor
Event Editor	Goes to the Event Editor
Play Game as finished	Plays the entire game from the start
Play Level as finished	Plays an entire level.

When you start out, only the "Play Game as finished" option is available. If you select a level with the left mouse button, you'll also be able to call up the Level Editor and edit that selected level.

In order to use the other options, you'll need to highlight a level with the mouse, and add in some objects from the Level Editor.

The Tools

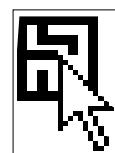
Tools

The Toolbar lets you create new levels, and add still pictures, or animation effects to your game. It can be selected by clicking on the "Tools" icon with the left mouse button.

Adding a new level



This icon adds a new level to your game. When it's selected, the mouse will change to show you holding a new level.



You can now move the mouse over one of the frames, and click once to add a new level. The left button creates a single level as you'd expect.

But if you select the frame with the right button, the mouse will still be holding a new level for you to add in. So you can continue to define additional levels as required. The final frame should be selected with the left button. You'll now leave insertion mode, and the mouse will return to normal. If you forget about this you can abort by clicking on the area below the "Tools" icon.

If a level already exists at your chosen insertion point, it will be moved one step forward to make room for your new frame. Also note that the "More.." frame indicates the first free frame in the current list. It can be selected to place your frame at the end of the sequence.

Once you've defined your levels, it's time to add in some objects. You can do this with the "Edit Level" option from the pop-up menu.

Adding a new picture



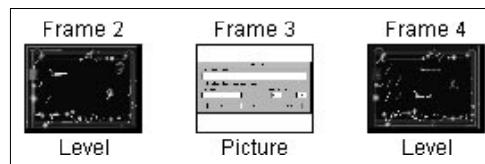
This icon lets you add a still picture to your game. Your image can be stored in any of the following formats: PCX, LBM, GIF, BMP or PICT (Mac only).

Here's how it's used:

Select the second icon from the Toolbar, and choose the insertion point with the mouse. Click on the left button to place the picture frame.

You'll now be presented with a standard Klik & Play file selector. You can get an instant snapshot of your picture with the "View" button. This displays your image in a small window on the screen. Click on the left button to return to the selector.

Once you've selected your file, a small copy of your new picture will be added to the storyboard.



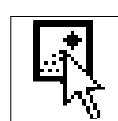
If you want to add several pictures, you should click on the frame with the right mouse button. This will ensure the mouse is ready to add a new picture. When you reach the last frame, select it with the left button, and things will return to normal.

Klik & Play doesn't just display your pictures on the screen. It also allows you to add a sound-track to your picture, or generate an impressive slide-show. You can even add a password to your frames. See Section 6.0 for more information.

Adding a new animation



You can insert one of these animations by selecting the "New Animation" icon from the Toolbar.



The mouse will now change shape to show it's ready to add an animation. Click on any one of the current frames to load it with your animation. Remember that the "More.." frame can be selected to add an animation to the end of the sequence.



You'll now be presented with a file selector so that you can choose your animation sequence from the disk. Klik & Play works with Auto desk compatible "flic" files in ".FLI" and ".FLC" formats. You can check out the effects using the "View" button from the selection window.

Note: If you select your frames with the right mouse button, the mouse will reappear ready to place another animation file. You can now add in as many sequences as you like. When you reach the final frame, insert it with the Left button, and everything will return back to normal. Alternatively, you can exit from this mode by clicking on the grey border area to the left of the Storyboard.

Deleting a frame

You can erase a frame by simply selecting it with the left mouse button, and pressing the Delete key from your keyboard. If you'd rather use the mouse, you can also call up the "Delete" option from the "Edit" menu.

Warning! These options permanently delete the entire contents of your frame, including any level objects and events.

If you're creating a slide-show, or animation, it's sensible to delete the first level before adding your new frames. Otherwise Klik & Play will display an empty game level at the start of your show, destroying the effect completely.

Viewing a picture

If you want to display a frame on the screen, you can bring it into view using the "Test Picture" option from the pop-up menu. This menu can be entered by selecting your frame with the right mouse button. It shows your picture in a standard window, which can be removed with a simple click on the left mouse button.

Changing the picture

You can replace the current picture by selecting a frame with the right button, and choosing the "Select Picture" option from the pop-up menu. This will display a file selector which can be used to choose a new image for your frame.

Viewing the animation sequence

If you'd like to test your animation sequence on the screen, just select it with the right mouse button, and choose the "Test Animation" option. After you've seen the effect, you can remove it by clicking once on the left button.

Changing the animation sequence

You can replace the current animation at any time, using a simple menu option. Just click on your frame with the right button, and call up the "Select an Animation" command from the resulting menu. You'll now be presented with a file selector which can be used to choose a new file for your animation.

Editing a Level

Changing a level is easy, as the Klik & Play editing system is only a mouse click away. Here's a list of the possible editing options.

1. Select your level with the left mouse button, and jump to the appropriate editor using the "Game" menu.
2. Highlight your level with the right mouse button, and choose one of the editor options from the pop-up menu.

3. Choose your level, and call up the Editor from the "Tools" icons.

When you're starting from scratch some options will be greyed out, but as you fill in the details and create your game, they'll quickly become accessible.

The Level options

Each level has its own menu of options, which can be brought onto the screen with the right mouse button.

Level Set-up

We'll be talking about this a little later. It enters the name, password, and dimensions of your selected level. See Section 6.0.

Goto Level Editor

Calls the Level Editor, allowing you to add new objects, events, and conditions to your game.

Goto Step Through Editor

Jumps to the Step Through Editor, and tests the current level on the screen. This option is only available if you've already defined at least one active object in your level.

Goto Event Editor

Runs the Event Editor, so that you can add new events and actions into your game. Like the previous option this cannot be selected if the level has no objects.

Play Level As Finished

Plays your selected level on the screen.

Cut and Paste

You can copy your frames using the "Edit" menu. This lets you cut and paste entire levels of your game, and rearrange the contents of the storyboard.

Selecting some frames

You can choose your frames in three ways.

1. Hold down the left button of the first frame in your sequence, and drag a box around the frames you wish to select. When you release the button they will be highlighted ready for use.

2. Select your frames by simply clicking on them with the Left mouse button. If you want to choose several frames, hold down the Ctrl (control) key during the selection process (Mac users can also use the Shift Key).

3. Choose the "Select all" option from the "Edit" menu to highlight all the frames in a single operation.

You can abort the selection at any time using the "Unselect" command from the "Edit" menu.

Copying your frame

Once you've selected your frames, you can copy them around with the "Copy" command from the "Edit" menu. This grabs your frames into memory, without affecting the existing versions on the screen. If you're copying a level, you'll grab all the objects and all the events it contains. So you can borrow features from your previous levels and use them to create something entirely new.

After you've copied your frames into memory, you can reproduce new frames to the storyboard using a simple "Paste" operation.

Cutting a frame from the Storyboard

The "Cut" option grabs your frames into memory, and chops them out of your storyboard. You can use it to move your frames to a new position.

The Paste option

"Paste" takes some previously stored frames from memory, and replaces them onto the storyboard. When it's selected, the mouse will turn into an insertion pointer. You can now move this pointer over the destination frame, and click on the mouse to reproduce your frames. Any existing frames will be shifted to the right to make room.

Set-up options

These options let you customise your game levels, and add new controls to your slide shows. Each frame can be defined independently, using a set-up feature from its pop-up menu.

Level Set-up

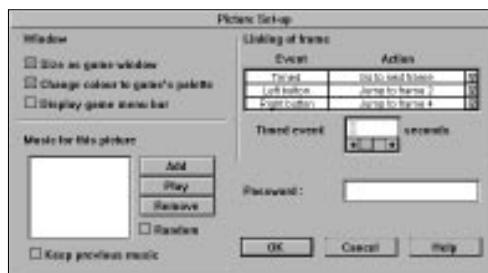


This enters the name of your current level, and allows you to choose a password for it. The X and Y boxes let you change the size of the play area. See section 6.0 for more details.

Picture Set-up

Specifies a series of options for the current picture, and allows you to display it as part of a slide show.

Here's what the Set-up screen looks like:



We'll now examine each of these options in turn:

Size as game window

If this option is selected the picture will be displayed in a normal sized game window. If it's turned off, the size will vary depending on the actual dimensions of your image.

Change Colour to Game's Palette

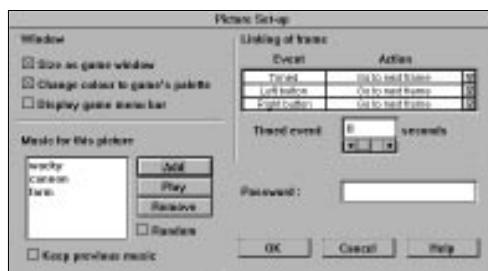
Loads your image with the same colour scheme as your games. This option can have odd effects, and should only be selected if your pictures have similar colour settings to Klik & Play. As a default, this feature is switched off. So your picture will be displayed using its original colours.

Display Game Menu Bar

Displays a "Game" menu at the top of your picture window.

Music for this picture

Selects a musical accompaniment. The entries are shown in a "play list" to the left of the screen.



Play

Plays through the entire play list.

Remove Deletes the selected piece of music in the play list.

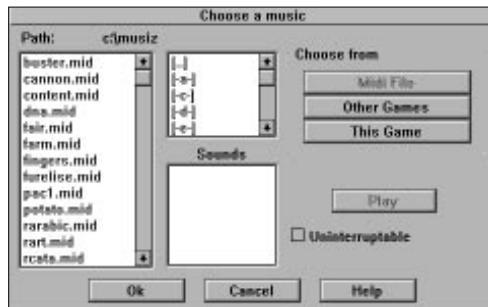
Random Plays the list in a random order while the picture is being displayed.

Keep Previous Music

Continues to play any music left over from the previous frame. When this finishes, a new piece of music will be selected from the play list.

Add Inserts a piece of music into the current play list. This music should be available from a standard ".MID", or ".MUS" (Windows version only) file.

You can choose your music using a selector:



Midi file enters your music from a midi file in ".mid" format.

Other Games

loads some music from another Klik & Play game.

This game

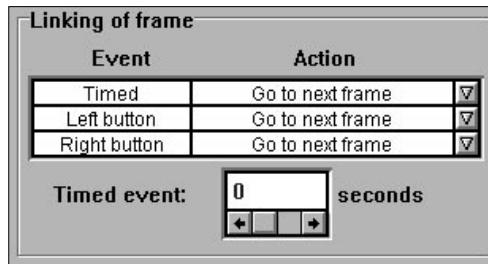
grabs some music from another level.

Play plays the currently selected file.

Sounds lists the music's found in the current game or .mus file.

Linking of Frame

These options allow you to control how the slide show will work.



Event Lists all the events which trigger an action.

Available options include:

Timed Calls an action after a selected time interval.

Left button

Performs an action when the left mouse button is pressed.



Right button

Performs an action when the Right mouse button is pressed. You can choose the actions by clicking on the arrow icon to the right of each line

Here's a list of the possibilities:

No Action

Does absolutely nothing! You can use this action to turn off a selected event.

Jump to...

Moves directly to the chosen frame. This frame can be either a picture, an animation sequence, or a game level.

Go to next frame

Calls the next frame in your storyboard

Restart game from frame 1

Jumps back to the first frame of the storyboard.

Timed Event

Sets the interval of a timed event in seconds. There's a maximum of 100 seconds between each action.

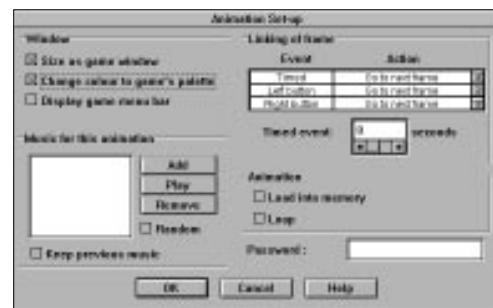
Password

Enters the password for your picture.

Animation Set-up

You can customise your animation effects with the "Set-up Animation" command from the frame's pop-up menu. Each frame can have its own separate settings.

The following Set-up screen will appear:



As you can see, this is almost identical to the "Picture Set-up" system we looked at above. There are just two new options.

Load into memory

Loads the animation into memory before running it. This takes a little time, but results in a smoother display.

Loop

Repeats the animation continually until an event occurs.

Creating a Slide-show

Here's a step by step guide to creating your own slide show.

1. First, find some pictures or Auto desk animation sequences for your show.
2. Click on "Frame 1" with the left mouse button, and hit the delete key to erase the initial game level. If it's left in, it will muck up your slide show completely.
3. Now use the Toolbar options to insert each slide into the appropriate frame. It's a good idea to select the insertion point using the right mouse button. This will let you add a series of frames, one after another. When you reach the last frame, select it with the left button. The mouse pointer will return to normal.
4. Call up the "Play Game as Finished" option from the "Game" menu. The first picture in your show will now be displayed in its own window. You can move through your sequence with the left and right mouse buttons.
5. If you want your slides to be displayed automatically after a selected period, you'll need to change an option from the Set-up menu. Click on each frame in turn, and hold down the right mouse button to call up the menu. Now select the appropriate Set-up command. When the dialogue box appears, move the mouse over the Timer bars, and enter the number of seconds between each slide. If you want to turn off the

mouse controls, click on the arrow icons alongside the relevant events, and select "No Action" from the menu.

6. Finally, you can add some music to your presentation. Select the frame with the right mouse button, and enter the "Set Up" option. Now click on "Add" to add some new music to your image. Choose an appropriate ".MUS" (Windows version only) or ".MID" file from the disk, and click on "OK" when you're finished.

7. Save your finished slide show onto the disk using the "Save As" option from the "File" menu. If you want to distribute this show to your friends and colleagues, use the "Save Stand-alone game" feature to make an independent copy. This can be installed directly onto the Windows/Macintosh Desktop, just like a normal program.

And that's it! All that's left, is to test your new presentation using the "Play game as Finished" command. Have fun!

3.0: The Level Editor

The Level Editor sets the scene for your games. It's a blank canvass ready and waiting for your creations.

Supposing you want to add an attacking alien to your game. You choose an "object" from one of the supplied libraries, position it carefully on the screen, and select a movement option from a menu. When you play your game it will now sweep towards the player like magic.

The Level Editor is controlled using simple menus and dialogue boxes. Everything you do can be changed around at a moments notice. So you don't need to be an artist or a programmer. All you need are the initial ideas. Klik & Play does the rest!

Your games can be divided into separate levels, each with their own unique set of objects and screens. You can add new levels using the Storyboard Editor which we saw in Chapter 2. You can create new levels with the Level Editor, we'll be explaining this here.

Each level is composed of a number of objects arranged on the screen. These objects provide you with the raw materials for your games. They generate attacking spaceships, bouncing balls and beautiful landscapes.

Before you can use these objects, you first need to know a little about them. We'll be providing you with a complete explanation in section 4.0

But for now, here's a quick run down of the basic object types:

Active Objects

These objects are used for all the parts of your game that have to move around on the screen. They allow you to create anything from a player character to a giant alien monster. Any active object can be assigned to attractive animation sequences. So they can change shape in front of your eyes. The Klik & Play Animation Editor is something really special. It lets you reverse, rotate or expand entire animation sequences at a time.

You can also move your objects around the screen using a range of powerful movement options. Want to assign an object to the Player? Choose "Eight Direction Movement", and you'll be able to control it with the joystick. Need to move your aliens through an attack wave? Pick the "Path movement" option and draw your movement pattern on the screen. It's easy with Klik & Play.

So don't forget. If you want an object to move, animate, or interact with the game, make it active.

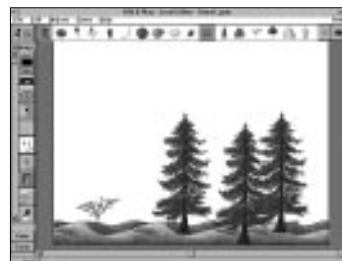
Here's a couple of examples:



Backdrop Objects

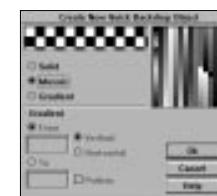
These objects define the general appearance of your game and add a much needed gloss to your backgrounds. They're also useful for obstacles such as walls, buildings, ladders, or stairways. You can create your backdrops either from the Klik & Play Picture Editor or your favourite drawing package.

Unlike their Active cousins, Backdrop objects can't be moved in your game. They are fixed into the position where you place them.

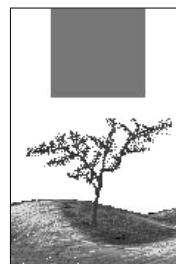


Quick Backdrop Objects

These generate colourful backgrounds without the need to consume valuable amounts of memory. They are used to create landscapes, skylines or seascapes. Quick Backdrops can display either smooth blocks or colour, attractive colour gradients, or fancy mosaic patterns like Windows wallpaper.



When you first define them, all Quick Backdrop objects are drawn in a standard size.



Fortunately, you can change their dimensions by simply expanding them with the mouse. So you can create anything from a thin strip, to a massive block of colour.

3.1 Getting to grips with the Level editor

Calling the Level Editor from the Storyboard Editor

As a default, Klik & Play starts off with the Storyboard Editor. So when you need to design your game screens, you'll need to call up the Level Editor by hand.

There are several possibilities:

- 1.Select your chosen frame with the right mouse button and choose "Go to Edit Level" from the resulting menu.
- 2.Click on a frame with the left mouse button and pick the "Level Editor" option from the "Game" menu
- 3.Highlight the frame with the left button and select the "Goto Level Editor" icon from the "Goto" button.

If this sounds unbearably tedious, you'll be pleased to note that you can enter the Level Editor automatically whenever Klik & Play is loaded. You'll find an appropriate option in the Level Editor's "Edit/Preferences" menu.

Level Editor Overview



The Editor screen is divided into seven main areas:

The Menu Bar

The Menu bar contains a series of drop down menus which can be selected using the left mouse button.

The Library List

This is a scrolling list of "object libraries" containing hundreds of attractive objects for your games. Each library is represented by a small icon, which can be selected with

the left mouse button to load its objects into the Object shelf. These objects can now be added directly to your game. You can return to your current game objects by clicking once on the Level Objects Icon.



The Object Shelf

The Object Shelf holds a list of objects which can be added to your game. These objects are represented by small icons. You can select these icons with the left mouse button, and then drop them into position on the play area.

If there's not enough room for your objects on the shelf, you can scroll through the list using the blue arrow icons on the right. You can also select objects from other frames of your game using the red arrows.



The Level Objects Icon

Loads the Object Shelf with all the objects used in the current game level. This list is automatically updated whenever you introduce a new object into your game.



The Play Area

The Play area, or playfield, forms the background to your games. This screen is displayed in a resizable window whenever you play your game. If the screen is too big to fit into the Level Editor, you can move around it using a couple of standard Windows/Macintosh scroll bars. You can also change the size of the play area with a simple option from the "Edit/Level set-up" menu.

The Toolbar

The Toolbar allows you to create new objects for your games. These objects are defined using a series of easy to use dialogue boxes. Once they've been created,

they can be positioned on the play area directly with the mouse.



See Section 3.12 for a full explanation.

The Goto icons

Present you with a list of command icons which can be used to jump to the various parts of the Klik & Play system.



If a destination is not available, it will be greyed out

3.2 The Object Shelf

The Object Shelf holds a series of objects on the screen, ready for use. Each object can be selected with the mouse and added to your game. The objects are represented by a series of icons, which can be grabbed with the left mouse button and moved into position on the play area. When you're happy with the effect, you can drop it into place with the mouse.

The Left button

Pastes a single copy of your object on the screen.

The Right button (Mac user: ⌘ Click)

Places several copies , one after another.

You can abort the selection by clicking back on the object's icon in the shelf, or by pressing the "Esc" key

Any object can be inspected by highlighting it with the mouse, and holding down the left button. After a couple of seconds your object be displayed in a small window. It will be removed from the screen when you release the button.

There are two special icons to watch out for:

The Active Object Icon

This is placed before the first active object on the shelf. Active objects usually have an animation sequence associated with them.



The Background Object Icon

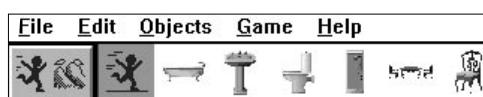
Indicates the start of the background objects.



Displaying the object shelf

The object shelf can be displayed in two ways (Windows only version).

Normally, it's positioned in its own box at the top of the Level Editor:



The arrow icons will allow you to scroll the entire object shelf, viewing all the available icons.



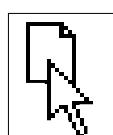
Alternatively, you can display the shelf in a standard window. This can be expanded to show all your objects on the screen at once. To do this click on the Objects menu, then select "Show Objects", a further menu will appear, select "in a moveable window". You will then be able to size the window to your own specifications.



Selecting an Object

You can select an object from the shelf by simply clicking on it with the left mouse button.

The mouse pointer will change accordingly.



You can now move the mouse anywhere on the screen to position the object in your game. When the mouse enters the play area the pointer will be replaced by a full sized copy of the object. This can be moved over the play area, and dropped into place with a single click of the left mouse button.

If you want to position several objects, you can paste them on the screen with the right button instead (Mac users: **⌘ Click**). This will assign your object permanently to the mouse. You can now make as many copies as you like, without having to continually reselect your object from the shelf. It's a good idea to paste your last object with the left button. This will return the mouse back to normal.

If your destination area is not displayed on the screen, you can scroll the play area through the editor using the scroll bars to the right.

3.3 The Library List

Klik & Play comes complete with hundreds of ready made objects for your games. These objects are grouped together into "libraries". Each library is represented by a small icon in the library list. If you select one of these icons with the mouse, the Object Shelf will be loaded with the library's contents. You can now copy these objects directly into your own games.

Naturally, you're not just limited to the supplied object libraries. It's easy to create your own. Just load up a game containing your objects, choose the "Save game as library" option from the Objects menu. In the resulting save library selector, give your object group a filename and then save them. From now on, the new Library will be instantly available from the Library List.

Selecting an object from a library

The Klik & Play Library system is very simple to use. You simply move the mouse over an icon in the Library List and click on the left button to load the library into the Object shelf. You can now select these objects with the mouse and position them anywhere over the play area.

Let's see an example of these libraries in action:

Place the pointer over the library list and move it down until you're over the "Toyland" icon

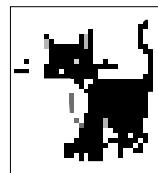


If it's not on the screen, use the scroll bar to the left of the list to move it into view.

The Handy Hints system will automatically display the name of each icon in a small box. So it's easy to see what you're selecting.

Click on the left button and the library objects will be loaded into the object shelf.

Now move the mouse over the "Pudsie the cat" icon and select it with the left button.



Position the mouse over the centre of the play area. The pointer will be replaced by a small cat.



Finally, click on the left button again to fix this object into place.

Easy isn't it.

Let's try another experiment.

Place the mouse over the "heart and soul" object on the shelf. As before, select it with the left button.

You can now paste your object onto the play area with the right button (Mac user: **⌘ Click**).

After it's been positioned, the mouse will stay assigned to your heart object. So you can make as many copies as you like, without having to select each one separately. When you get to the last copy, drop it into place with the left button. The mouse will now return to normal. Alternatively, you can abort from this mode by pressing the "Esc" key from the keyboard.

Once we've added some objects to our games, we can select them directly from the object shelf. You can bring up a list of the current level objects by clicking on the "level objects" icon.



3.4 The Play area

The Play area provides a window to your game. It's the screen where all the action takes place.

If the play area is larger than the current window, you can move through it using the scroll bars along the sides.

The play area is divided into two sections.

The Visible area

Holds the part of the screen which will be displayed when you run the game. It's initially shown as a white panel. This will fill up as you add more objects to the level.

The Holding area

This area is totally invisible during play. It stores all the objects which will be introduced later in the game. It's coloured grey.

Objects can be freely positioned on the play area, and can be moved around at any time. They can be copied, grabbed or deleted using a range of features from the "Edit" menu. You can also change the order in which your objects will be displayed on the screen. Just click on the object with the right mouse button and select "View" to get a list of the available display options.

If you wish to include items such as counter objects in your game, then the holding area serves as an ideal place. Although your counter object may not be required until later in the game, by storing it in the holding area you are still able to edit the object easily, and make any necessary changes to the object.

Moving an Object on the play area

Klik & Play objects can be freely moved around the play area.

Here's the procedure:

First place the mouse over your object. The pointer will change to a selection arrow.



You can now hold down the left mouse button to reposition your object on the screen. Your object will be surrounded by a small rectangle like so:



This can be moved to a new position on the play area. When you release the mouse button, your object will jump to the new location.

Let's see an example of this system.

First, we'll position an object on the play area.

Select the "Toyland" icon from the library list and click on the "Spinning top".

Move this over the centre of the screen and drop it into place with the left mouse button.

We'll now drag this object to a new location.

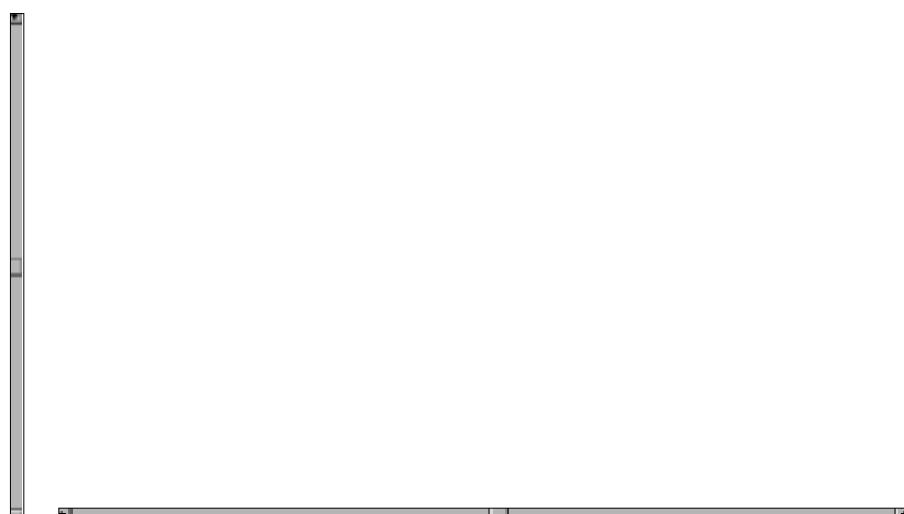
Move the mouse over the spinning top on the place area. The pointer will change to a selection arrow.



As you can see, your object is surrounded by a hollow box. This can be dragged around the screen to move your object on the screen. Hold down the left button and place the box over a new part of the play area. Now release the button, and the spinning top will move to the new location.

Scrolling the play area

The play area is surrounded by two "scroll bars".



The vertical bar moves up and down through the play area.

The horizontal bar scrolls it left or right.

Near the centre of these bars, there's a small button which can be dragged with the mouse.



You can drag these buttons to gradually shift the play area through the editor window.

If you click on any other point on the bar, the window will scroll a large distance in the selected direction. You can use this feature to quickly jump to a general region of the play area.

The small arrow icons let you scroll the play area by a single unit at a time.

To quickly centre the play area, click on the box at the bottom right of both sides.



3.5 Deleting an object from the play area

Deleting a single object

You can delete one of your objects by simply clicking on it with the left mouse button and either pressing the DELETE key, or calling the Delete option from the "Edit" menu.

Here's an example:

Before we can test this feature, we'll need to copy some objects to the screen. First, select the "Toyland" icon from the library list. You may need to drag the scroll bar a bit to move it into view.

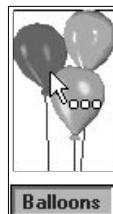


The Toyland library will be loaded into the object shelf.

Click on the "Balloon" object and position it where you like. Now drop it into place with the right mouse button. Make four copies of this object at various points on the play area. When you get to the last balloon paste it on the screen with the left button.

We now have four balloons on the screen. Let's remove one of them.

Move the mouse over any balloon you like, and select it with the left mouse button. It will be highlighted like so:



Hit the Delete key to remove it from the game - it's that simple!

Deleting a group of objects

If you want to delete several objects at a time, you should hold down the CTRL key, and choose each object with the left mouse button. A box will enclose each object as you select them. You can now press DELETE to erase the entire group, or click on a blank area of the playfield to deselect them.

Let's delete the remaining balloons from the previous example.

Place the mouse over the first balloon, and click on it with the left button as before.

Now hold down the Ctrl (control) key and whilst it's pressed, click on another balloon.

Repeat this process for the second and third balloon on the screen.

Hit the Delete key (or choose Delete from the Edit menu) and watch all three balloons vanish from the screen.

Alternatively, you can delete a whole block of objects by dragging a box around them. Move the pointer over a blank part of the Play area, and hold down the left mouse button. You can now drag a box around the area you wish to erase and delete your objects as before.

3.6 Copying an object

Any object you create will be automatically added to the current level list. So you can copy an object by simply grabbing its icon from the Object Shelf and pasting it on the screen.

If the Object Shelf is displaying a library's objects you'll need to select the current game objects by clicking on the "Level Objects" icon. Here's an example:

First, we'll select an object from the "Toyland" library.

Move the mouse over the "Toyland" icon and select it with the left button.

If it's off screen, drag it into view with the scroll bars.



Now click on the "Clown" icon from the object shelf, and position it anywhere on the screen.

Drop the clown into place with another click on the left button.

Let's make a copy of this clown somewhere else.

Select the level objects icon to load up your current objects into the shelf:



You should see this:



Now select this object with the mouse, and drop a new copy into position.

Simple isn't it?

It's also possible to clone any object by clicking on it with the right mouse button, and choosing the "New Level Object" option from the resulting menu. See Section 4.11 for more details.

3.7 Grabbing an object from another Klik & Play game

This can be accomplished using a simple option from the Objects menu. Select "Pick Objects from a game" and choose any Klik & Play game from which you want to copy an object. The requested objects will be loaded straight into the Object shelf ready for use.

Note: If the selected objects have been assigned to a movement sequence, or animation, these attributes will be grabbed automatically as part of the copying process. So you'll be able to use them immediately in your own games. But since they are totally separate from the originals, you can make as many changes as you wish, without affecting the existing game.

When you've finished you can click on the Level Objects icon to display the objects from the current game.

Let's see an example of this technique:

Move the mouse over the "Objects" menu at the top of the screen.

Select the "Pick Objects from a game" option.

You'll now be presented with a standard Klik & Play file selector.



Choose the file "romeo.gam" from the Gamepack directory.

And click on "OK" to load its objects into memory.

The game objects will be loaded into the object shelf like so:



Finally, select the "Thin Romeo" object and place it anywhere on the play area.

You can now test the effect by choosing the "Play Level" option from the "Game" menu.

Your new object will move around the screen in its original movement pattern.

3.8 Viewing an object

To view an object from the Object Shelf, move the pointer over its icon, and hold down the left mouse button. The object will now be shown in a small window, which will disappear when you release the mouse.

Let's try this for ourselves.

Select the "Toyland" icon from the library list and move the mouse over the "Dude's

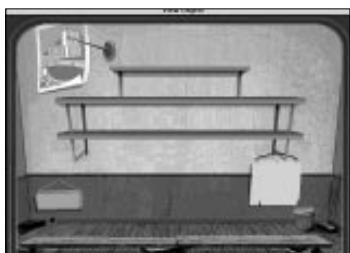
Room" object.

It looks like this:



We can now display this background on the screen.

Hold down the left button over "Dude's room" and wait for a few seconds as the full picture is being loaded into a window.



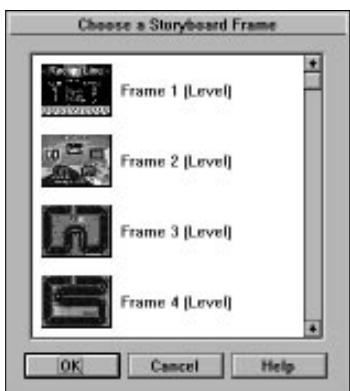
When you release the button, the picture will be removed.

3.9 Moving to a new level

If you've defined several levels for your game, you can move between them in two ways:

1. Call up the "Jump to Level" option from the "Game" menu.
2. Select the "Jump to Level" icon from the "Goto" icon.

Either way, you'll be presented with the following screen:



You can now pick your level by double clicking on it with the left mouse button.

If there are more than four levels, you can move through the list using the scroll bars to the right of the selection window.



3.10 Testing times

After you've created your levels, you're ready for the fun part. Playing your actual games.

Testing a level

If your game has several levels, you should first select one to be tested using the "Jump to Level" option from the "Game" menu. See section 6.0.

You can now test your level using two options from the Game menu.

Play Level As Finished

Plays your current level. The Level Editor will now disappear, and you'll be returned to the Windows/Macintosh desktop. In the centre you'll see a large window containing your game. You can play this game by selecting "New Game" from the "Game" menu, or hitting F2 (Mac: **⌘ N**). You can exit by either calling "Quit" from the "Game" menu or just pressing ALT and F4 (Mac: **⌘ Q**) from the keyboard.

Step Through Editor

This option is a little more complicated. It calls up the Klik & Play Step Through Editor which allows you to define the actions in your games. Full

details can be found in Section 5.1.

Testing an entire game

You can play your current Klik & Play game using either the "Play Game as Finished" option from the "Game" menu, or by selecting the appropriate icon from the GOTO icon.

In both cases, your game will be loaded into a standard window, and the Level Editor will disappear. Note that these can only be called up from the Storyboard Editor.

Look at the "Game" menu for a number of useful options.

You can start the game by selecting "New game", and leave with "Quit".

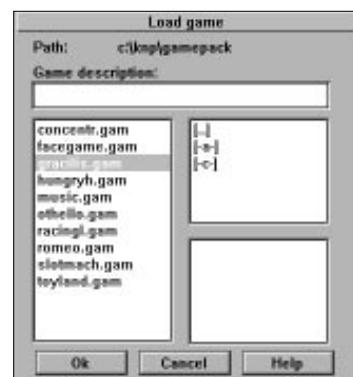
If something important comes up (like your boss) you can remove the game from the screen by hitting the "Panic" key F5. You can return to your game by pressing F5 again.

Example

First, we'll load a game into Klik & Play.

Call up the "File" menu from the top of the screen and highlight the "Load game" option.

You'll now be presented with the Klik & Play file selector.



Select the Gamepack directory.

Drag the scroll bars until you see "romeo.gam".

Double click on this and it will be loaded into memory.

You'll be immediately returned to the Storyboard Editor.

Select "Play Game As Finished" from the "Game" menu.

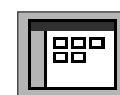
Your game will be loaded into it's own window, and the Storyboard Editor will disappear.

If you want to play another game, press Alt + F4 (Mac: ⌘ Q) or call up "Quit" from the game menu.

3.11 The Goto Icons

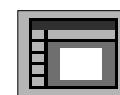


The GOTO button from the Level Editor provides a simply way of moving around the Klik & Play system. Each part of the package is represented by an icon. Here's the list:



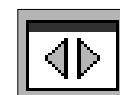
Goto Storyboard Editor

Takes you to the Storyboard Editor where you can define new levels for your games.



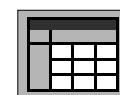
Goto Level Editor

Jumps to the Level Editor. If you're already there, it will be greyed out.



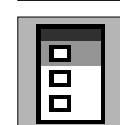
Goto Step Through Editor

Enters the Step Through Editor to test your games.



Goto Event Editor

Calls the Event Editor to add events and actions to your game.



Jump to Level

Loads the selected Level into the Klik & Play Level Editor (only if there's more than one level in the game).



Play Game as Finished

Plays the entire game, in its own window (only available from the Storyboard Editor).



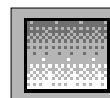
Play Level as Finished

Plays the current level.

3.12 The Toolbar

The Toolbar is a control panel which allows you to create new objects for your

games. It can be displayed by selecting the Tools button from the Level Editor. Each icon adds a particular type of object to your game.



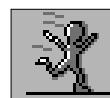
Quick Backdrop Object

Creates a Quick Backdrop object to your game. You'll be asked to define the colour and fill pattern used by your new object. You can now position your object on the play area and drop it into place with the mouse. It can be resized by clicking on a corner with the left mouse button and dragging it into shape. See Section 4.5



Backdrop Object

Adds a new Backdrop object to your game. You'll be immediately presented with the Picture Editor so that you can draw your new object on the screen or import it from a file. See Section 4.3 for more details.



Active Object

Generates a new active object. The Animation Editor will be called automatically to let you define each frame of the object's movement sequence. Full details can be found in section Section 4.4.



Text Object

Introduces a new Text object to your game. You can define several paragraphs for each object and choose between them during your games. The appearance of your text can be set using a standard font selector. You can also change colour and justification using a pop-up menu. See Section 4.6.



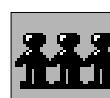
Question Object

Defines a new Question object. You'll be requested to enter the Question and the acceptable Answers using an appropriate dialogue box. See Section 4.7



Score Object

Produces a new score object for your games. You can choose the style from any of the available TrueType fonts. Further information can be found in Section 4.8.



Lives Object

Creates a new Lives object. The remaining lives can be displayed either as a number, or a picture. See Section 4.9.



Counter Object

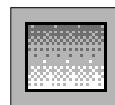
Adds a counter object to your game. You can choose how often the counter will be updated and enter the minimum and maximum values using a simple dialogue box. See Section 4.10 for more details.

In the next chapter, we'll be explaining these object in detail, and showing you how to create, edit, and animate them on the screen.

4.0 Objects

Types of Object

There are eight types of objects to choose from:



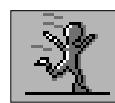
Quick Backdrop Objects

Quick Backdrop Objects are perfect for sunsets and seascenes. The difference these and normal Backdrops lies in the way they are drawn. Quick Backdrop Objects don't have their own images. They are generated directly from Klik & Play, using a variety of fancy fill patterns. This allows you to create simple skyscapes,wallpapers, and bars, using the absolute minimum of memory.



Backdrop Objects

Backdrop objects are fixed in position for the duration of your games. They are used for things like walls, doors, or rocks. Each Backdrop Object is assigned to a single image, which can be either loaded from an object library, drawn using the built-in Picture Editor, or imported from your favourite graphics package. Backdrops can also be used as obstacles, platforms and ladders.



Active Objects

Active Objects have all the elements which enable the object to move around the screen, or react to events. Obvious uses are flying spaceships, bouncing balls or player characters. Active Objects are also important for static object purposes, such as targets in pinball, where a once previously static element has been touched and it now becomes active or performs an action.



Text Objects

These display simple messages or titles. Each text object can have its own list of paragraphs, which can be printed on the screen at the appropriate points in your game.



Question Objects

Question Objects provide you with a simple way of adding multiple choice question and answer sequences to your games and educational programs. They display your question on the screen, and wait for the player to select an answer with the mouse. Depending on the result, your game can then perform a suitable action.



Score Objects

Score Objects keep a running total of the player's score, and automatically display it on the screen. You can print the score in any of the available TrueType fonts, and in any size.



Lives Objects

With this type of object you can display how many lives a player has during the game. As the player gains or loses lives, this object will update to reflect this. You can easily choose what image will define a life.



Counter Objects

These are great for displaying the current fuel level of a car in a game. Or you can use them to hold values that are important for game logic.

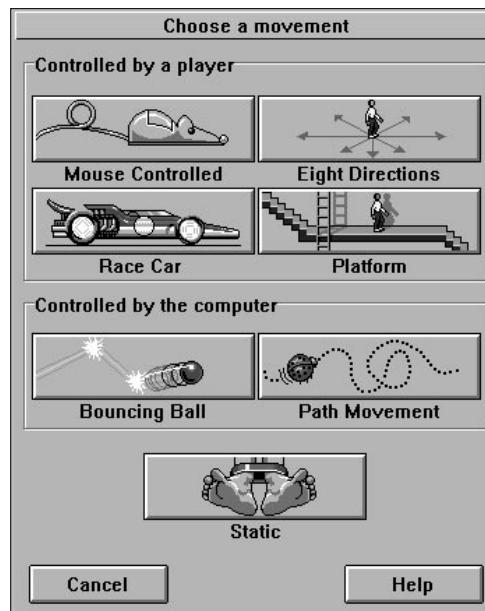
4.1 Making your objects move

Active objects provide the action in your games. They give you the power to sweep aliens down the screen, control a world saving character, bounce balls around your display and much much more.

Basic Principles

There are eight movement systems to choose from. To access the menu allowing you to select the particular type of movement you want, point at your particular object and press the right mouse button. From the resulting menu choose the option "Movement", from this a sub-menu will appear, from the sub-menu choose the option "Select Movement".

This presents you with the following dialogue box.



Each icon provides a different control method for your object.

Here's a quick list of the possibilities:

Player Controlled movements:

Make the object controllable by a player.

Mouse movement

Assigns an object to the mouse. Perfect for the bat in a rebound game.



Eight Direction Movement

Controls your object from the keyboard or joystick (if connected).



Race car

Simulates a bird's eye-view car movement.



Platform

Gives a character platform game movement.



Computer controlled movements

Klik & Play will move objects with these types of movement.

Bouncing ball

Bounces your object around the screen.



Path movement

Allows you to move your object through a predefined movement pattern.
Great for attack sequences in an arcade game.



Static (Default)

Leaves your object in its original position.

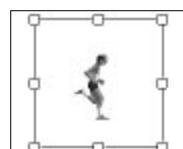


Player controlled movements

Mouse movement

The mouse provides a simple way of controlling an object in one of your games. It assigns your object directly to the mouse pointer.

When you call this option, your object will be surrounded by a rectangular box. This represents the limit within which your object can move on the screen.



You can expand this area by dragging one of the square control points with the mouse. The movement zone is centred at the object's hot spot. So if you position the object from the Level Editor, the zone will move as well. Klik & Play won't let you drag the box outside the object. If you try, the box will spring back to the hot-spot, changing shape in the process.

You can test the movement at any time by selecting the "Try Movement" button from the dialogue box:

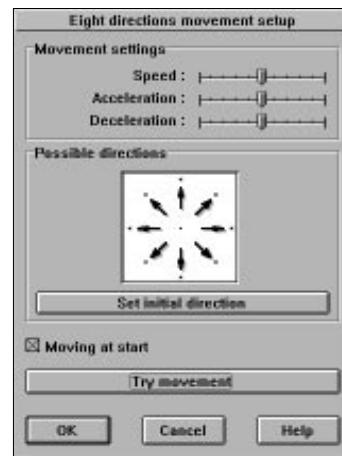


Move the mouse around to "try" the mouse movement, then press the "Esc" key to stop the test.

Note that Klik & Play also allows you to read the mouse coordinates directly from your game. The Event Editor provides a series of "conditions" for this purpose. See Section 5.3.

Eight direction movement

When you select this option the following dialogue box will appear:



If you're an experienced gamer, you'll recognise this control system immediately. This option moves your object using either the Joystick or the cursor arrows. It's perfect for arcade games.

The reason for the "eight direction" bit, is that this is the maximum number of directions available from the joystick. You can adjust the responsiveness like so:

There are 3 movement settings:

Speed Sets the speed your object will be able to move at. Simply adjust the slider to the left to decrease speed, or to the right to increase speed.

Acceleration

Determines how long it will take for your object to reach its final speed. For example you may wish to have a high acceleration speed if your object is a car for example, on the other hand if your object was an Elephant you would want the acceleration to be much slower.

Deceleration

Determines how long it will take for your object to stop. If we were setting the deceleration of the car, it would take a lot longer to stop than the Elephant as it is moving at a much faster speed.

Possible directions

This limits your object movements to the chosen directions.

You can turn a direction on or off by simply clicking on one of the square points with the left mouse button - an arrow will now point to the square to indicate that this direction can be moved in by the object.

Set initial direction

Sets the direction your object will be facing at the start of the game. If you pick several directions, Klik & Play will choose one at random.

Moving at start

This feature specifies whether your object will be moving when the game begins.

Race Car

The Race Car system simulates the movement of a race car on the screen. The car is seen from a birds-eye (top down) view, and can be steered with the arrow keys or joystick.

The player is provided with the following commands:

Accelerator	Up arrow	Joystick Up
Brake	Down arrow	Joystick Down
Turn Left	Left Arrow	Joystick Left
Turn Right	Right arrow	Joystick Right

Obviously, this system is not just limited to cars. The same options can be applied equally well to anything from a sailing boat to an aeroplane.

You can set the performance using a simple control panel.



Movement settings

Speed Sets the cars normal cruising speed.

Acceleration

Determines the effect of the accelerator. If you choose a large acceleration, the car will race away at the slightest touch on the gas pedal. Great for a Ferrari! If the value is small, your object will speed up slowly, like a heavy truck.

Deceleration

Controls the brake! The higher the value, the faster your object will slow down.

Enable reverse movement

Provides your object with reverse gears. If it's turned off, you'll only be able to move your car forward.

Directions

Number of angles 4, 8, 16 and 32

These buttons set the number of turning directions. Here's a list of the possible options:

Directions	Angle of turn	Effect
4	90°	Very coarse
8	45°	Rather jerky
16	22°	Smooth
32	11°	Very smooth

As you can see, the higher the number, the smoother the turning effect.

Note that you can easily assign a different picture to each of the available directions. The animation editor provides you with a built-in rotation option which will generate the entire sequence automatically. See Section 4.4.

Rotating speed

Sets the turning speed of your object. If you increase this value, you'll tighten up the turning circle, if you reduce it, the turn will be more gradual, and it will take some time to change direction.

Set Initial direction

Selects a direction for your car at the beginning of your game. If you enter several directions, Klik & Play will pick one at random.

Moving at start

This option determines whether your object will be moving when the game starts.

Try movement

Tests your movement on the screen. Press the Esc key, or select the "Stop" icon to abort.

Platform Movement

As the name suggests, Platform Movement is mainly used for setting up platform games. It allows you to make your characters "walk" along a landscape or floor.

You can control your character using the following options:

Walk Left	Left Arrow	Joystick Left
Walk Right	Right Arrow	Joystick Right
Climb	Up Arrow	Joystick Up
Jump Left	Left Arrow + Shift	Joystick Up and Left
Jump Right	Right Arrow + Shift	Joystick Up and Right

Movement settings

Here's a list of the available movement settings:

Speed Chooses the running speed of your character. Move the slider to the right to speed your object up.

Acceleration

Determines how long it will take for your character to reach his final speed. A large value makes the character spring ahead. A small value gradually increases the pace as the character moves.

Deceleration

Sets the slipperiness of the floor. If it's large, the character will stop immediately when you release the control. If it's small, he will gently slide to a halt.

Gravity Changes the speed at which a character falls towards the ground.

Jump Strength

Enters the jumping power of your character. The larger the value, the further the character can jump. Gravity will also have an effect on how this option works.

Jump Controls

These change the control system used for the jumps.

No Jump Turns the jumping off.

Up Left/Right arrow

Allows the player to jump using a combination of the Up arrow key, and either the left or right arrows.

Button 1 The character will now jump when the player presses the fire button from the joystick, or with the key assigned to button 1 (Shift as default).

Button 2 Jumps when the second fire button, or button 2 key is pressed (Control as default).

Set Initial direction

Picks a direction for your character at the start of the game. If you select several directions, Klik & Play will choose one at random.

Moving at start

This option determines whether your character will be moving when the game begins.

Try movement

Tests your character on the screen. Press "Esc", or select the "Stop" icon to abort.

Once you've defined one of these platform objects, you'll need to create some obstacles for it. These can be generated using either Backdrop or Quick Backdrop objects.

Here's the procedure:

Move your backdrop objects into position, and select them with the right mouse button. Now call up the "Obstacle" command from the pop-up menu. You'll be presented with the following options:

No Moves your object into the background.

Yes Defines the object as a normal obstacle, such as a wall.

Platform Creates a platform which can be used as a floor for a Platform object.

Ladder Makes a ladder which can be climbed by a platform object.

Computer controlled Movements

These options control your object directly from Klik & Play. They are used to generate anything from the attack sequences for your aliens, to the balls in a rebound game.

Bouncing Ball

This bounces your object around the screen. It's mainly used for pinball type games, but it can also generate simple movement sequences for your aliens. Here's the set-up box:



Movement settings

Speed

Sets the speed of your object on the screen.

Ball Deceleration

Normally the deceleration is set to zero, and the ball bounces on a frictionless surface. So it will move around forever. If you increase this value your object will lose speed as it moves. After a while, it will grind to a halt, just like a pinball.

Bounce Randomiser

Gives the ball a random chance of bouncing off into different directions. The higher the setting, the more varied the effect. If you'd prefer your rebounds to be predictable, you can turn this feature off by sliding the randomiser bar to the left.

Bounce Security

This jiggles your objects around to stop them getting stuck in a corner. As a result, your rebound effects will become a little more random.

Directions

Number of angles 8, 16, 32

Chooses the number of rebound angles in your game. The more angles you select, the smoother the bounce effect.

Set Initial direction

Picks a direction for your ball at the start of the game. If you select several directions, Klik & Play will choose one at random.

Moving at start

Starts your ball moving when your game begins. If you turn this option off, you can release the ball using an appropriate action from the Event Editor.

Try movement

Bounces your ball around the screen. Press "Esc", or select "Stop" to abort.

Path Movement

This option allows you to set-up a predefined movement path for your object. Supposing you wanted to create a guard who patrols the screen? Or a bird that dive bombs a player. These patterns are easy with Klik & Play.

The Path Editor

The Path Editor is the key to creating impressive movement effects in your games.

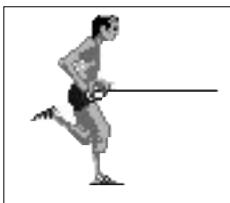
Select "Path Movement" from the menu and the following dialogue box will appear:



Your movement patterns are made up of a number of points. These points provide a series of stepping stones for your object. Whenever your object is moved, it will jump from point to point (nodes) in the sequence.

At the start, you'll see an "anchor" at the hot spot of your object.

The anchor represents the first point in your movement pattern. You can create additional points using the "New Line" icon. This stretches a line to a new position on the screen.



You can also generate smooth curves using the "Tape Mouse" option. This samples the mouse position at regular intervals, and inserts the appropriate points into your movement sequence.

The Path Editor is controlled using the following icons:



New Line Adds a single line to your movement. Normally, your line will be placed at the end of your current pattern. But you can also choose the insertion point directly with the mouse.

When it's selected, the mouse will be assigned to a new point in the path. You can now move this point anywhere you like. The line will stretch accordingly. Once you're happy with the results, click on the left mouse button to fix the point into position.



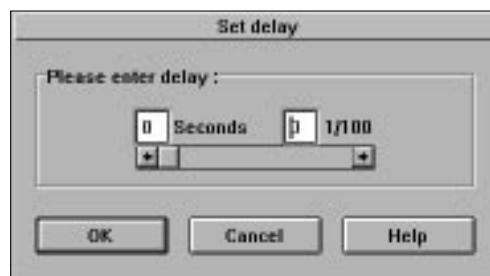
Tape Mouse

Records a pattern using the mouse. Just hold down the left button, and drag the mouse through your movement sequence. When you release the button, your new path will appear on the screen, ready for immediate editing. Note: The faster you drag the mouse, the fewer points will be generated, and the coarser the effect.

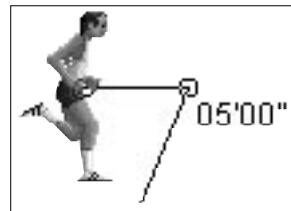


Pause

Stops your object at the current point, and waits for a specified time interval.



Click on the "Seconds" box to enter the number of seconds, and select the hundredths box to fine tune the delay. Each point in the sequence can have its own optional delay value. The delay will be shown as a small number in the path definition.



Loop the Movement

This repeats the pattern automatically whenever an object reaches the end of the movement sequence. The movement restarts from your object's existing screen position.

When Klik & Play runs out of points, it follows the pattern from the current object coordinates.



Reverse at end

This feature only takes effect when an object reaches the end of your movement pattern. It turns the object around, and moves it back the way it came.



Reposition object at end

Replaces your object at its original starting position after it has completed the movement.

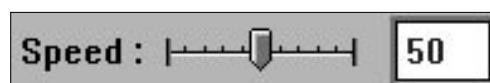


Speed

Sets the speed of your object. You can change the speed at any point (node) in your movement path.

Try movement

Tests your movement on the screen. Click on "Stop" or press "Esc" to abort.



Example

Lets create one of these patterns to play around with:

Your first task, is to select an object to be moved. A good object to choose, is the Penguin from the "Animals and Birds" library.

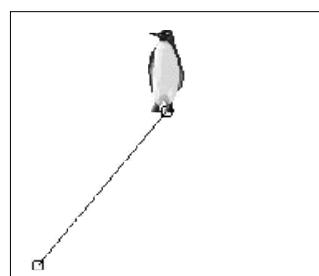
Place the Penguin at the centre of the screen, and click on it with the right mouse button.

Now call up the Path Editor like so: Move the mouse over the "Movement" option, and choose "Select Movement" from the sub-menu. Click on the "Path Movement" icon to enter the Path Editor.

You're now ready to create a simple movement pattern.

Select the "New line" icon to add the first line. The mouse will be assigned to your new point. As you move it across the screen, a line will stretch from your object to the mouse.

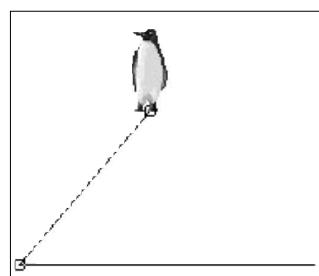
Position the mouse slightly down and to the left of your object. You should see something like this:



Click once on the left button to fix the line in place.

Now add in the next line in your sequence. Select "New line", and stretch the line to the right.

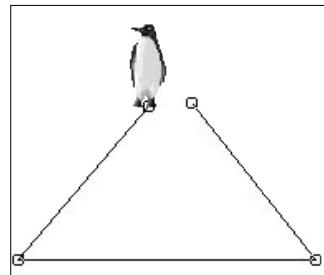
Here's what you're aiming for:



As before, click on the left button to drop the line into position.

Repeat this procedure for the final line in your pattern. Drag the end point just to the right of your starting position.

The completed movement pattern should look like this:



If you've made a mistake, you can edit your points directly from the screen. Just place the mouse over the chosen point, and click once with the left button. You can now drag your point to a new position.

Let's test this pattern out on the screen. Click on the "Try movement" icon, and watch the Penguin move through its paces. When you've had enough, select the "Stop" icon to abort.

So far, your object only performs a single loop. You can repeat your pattern continually by selecting the "Loop the movement" icon from the Path Editor. Once it's highlighted, test your pattern again with "Try Movement".

Your object should now skip across the screen, gradually drifting to the right. This happens because each new loop starts from where the old one left off.

You can also select the "Reverse to End" icon. This turns your object around when it reaches the end of the pattern. So it moves back and forth through your movement path.

The remaining option is "Reposition Object at End". If you've been following this example, you should first turn off the "Reverse to End" feature by clicking on its icon. You can then select "Reposition Object at End", and test the effect with "Try Movement". Your object will move through your pattern, and jump back to its starting position when it reaches the final point.

Now it's time to experiment a little for yourself. Have a go at adding your own lines to this sequence.

Here are a few tips to get you started.

1. Any point can be edited directly on the screen. Place the mouse over your point, click once to make it flash, now hold down the left button and you will be able to drag

the appropriate lines will stretch to a new position.

2. You can delete a point by just clicking on it with the left button, and hitting the Delete key.

3. If you want to move your object's starting position, drag the first point in the line (at the hot spot), and release the mouse at the new location.

4. You can drag a box around a section of a path and drag it about. You can also use the Cut and Paste options from the menu to edit the path.

Have fun! Before you know it, you'll have created a complex movement pattern for your games.

After you've finished, select "OK" to assign your new pattern to the object.

Static

The static option leaves an object in its present position, solid as a rock. It's used for creating things like the blocks in a rebound game, which don't move, but need to interact with the other objects. If objects are static they take very little time to draw, so you can have plenty of static objects without the game being slowed down too much.

4.2 Editing a movement sequence

Once you've added a movement sequence to your object, you can easily edit it from the Level Editor. Select your object with the right mouse button, and pick the "Edit Movement" option from the resulting menu. The movement dialogue will appear, simply make the changes you require and click on OK.

If you wish to make changes to a path movement sequence, select "Edit Movement", and you'll be presented with the Path Editor as before.

You can now edit your pattern directly from the screen. Any point can be grabbed with the left mouse button, and repositioned as required.

Editing a path

If you want to make more global changes, you can edit whole sections of a movement sequence at a time. Place the mouse over the selected region, and drag a box around it with the left button. When you release this button, your chosen points will flash on the screen. You can now edit your path using the following options from the main Edit menu:

Cut Removes the current section from your pattern, and saves it into memory.

Copy Saves the area into memory without affecting the existing path.

Paste Copies a previous area at the current point in your movement pattern.

Editing a line

To edit a line, move the mouse over one of its points, click once to select it and then hold down the left button to drag the line to a new position.

Editing a point

You can edit an individual point by simply clicking on it with the right mouse button. This will bring up the following options:

Draw line

Stretches a new line between the current point, and the next one in the sequence. You can now drag your line into place with the mouse, and drop it on the screen with a click on the left button.

Record mouse

Starts the mouse recorder from the present position. Hold down the left mouse button to begin, and release it to enter your new path into memory.

Set Pause

Stops your object for the selected time interval.

Set Speed

Changes the speed of your object from this point onwards.

Delete

Erases this point from the path.

Deleting an area

You can delete an area by holding down the left button over the top left corner, and dragging a box around your region. You can now call up the "Delete" option from the Edit menu, or press the Delete key.

Deleting a point

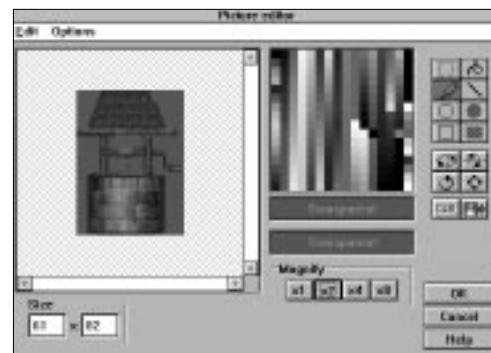
Deleting a point is very simple. Simply select it with the left mouse button, and hit the Delete key from the keyboard. You can also use the "Delete" option from the point's pop-up menu.

4.3 Editing a Backdrop Object

Backdrop objects are ideal for creating backgrounds and obstacles in your games. Klik & Play provides a mouth-watering selection of ready-made backdrops for you to choose from. These can be edited straight from the Level Editor with a simple option from the pop-up menus. Just click on your object with the right mouse button, and select the "Edit Picture" command.

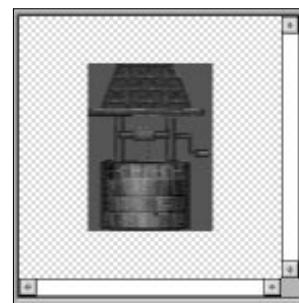
You'll now be presented with the Klik & Play Picture Editor.

The Picture Editor



The Picture Editor is the key to creating terrific graphics in Klik & Play. It comes in several different flavours, each dedicated to drawing a specific type of object. Each version works in the same general way.

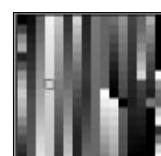
The Image Window



The Image window shows the image you are presently editing. If this image is too large to fit into the window, you will only be able to see a section at a time. You can move through the picture using a set of simple scroll bars.

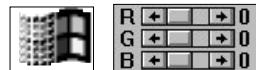
If you want to do some fine editing work, you can magnify your image using the Zoom icons. These expand the area by two, four, and eight times respectively. The "x1" icon turns off the magnification, and displays your image in its original size.

The Palette Window



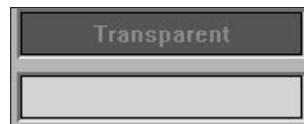
This contains a list of colours which can be chosen for your drawing operations. You can select a colour by clicking on it with the mouse.

The RGB sliders



These are only available if you're running Klik & Play with more than 256 colours. They allow to you mix a colour out of red, green, and blue components.

The Colour bars



The top bar shows the transparent colour. Anything drawn in this colour will be omitted when your image is displayed on the screen. You can click on this button to assign the transparent colour to the mouse. So as you draw, you'll wipe out parts of your image, rather like an eraser.

You can change the transparent colour using the "Choose Transparent Colour" command from the "Options" menu. This will display a menu of all the available colour options. There are sixteen possibilities.

The bottom colour bar shows the colour which will be used for your future drawing operations. As a default, it's set to transparent.

Changing the Size of your Picture

The Size boxes allow you to adjust the dimensions of your picture. The value to the left changes the width, and the one to the right sets the height. You can enter these values by just clicking on them with the mouse, and typing in your new size. The dimensions will only change when you select another icon with the mouse or press the Tab Key.

Drawing an Image

You can draw on your image by simply moving the mouse pointer over the image window, and clicking once on the left mouse button. The precise effect will depend on the current drawing operation. Allowable drawing options include single points, lines, circles, discs, boxes, and bars.

Choosing the colour

You can select the colour in four ways:

1. By clicking on a new colour from the palette window.

2. By selecting the transparent colour from the colour bar.
3. By moving over a point on your image, and grabbing its colour with the right mouse button (Mac: **⌘ Click**).
4. Using the RGB sliders to mix up a colour. This option is only available if you're using more than 256 colours, and is only available in the Windows version.

Plotting a point



Plotting a point is easy. Just select the Draw icon, and move the mouse pointer over your image. As you hold down the left mouse button, a point will be drawn in the present colour.

Drawing a line

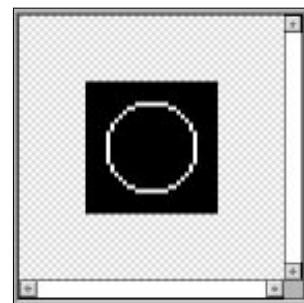


Lines can be drawn between any two points in your image. Simply click on the Line icon, and move the mouse over the selected starting position. Now hold down the left button, and stretch your line in the chosen direction. When you're satisfied, release the button to fix the results into place.

Circles and ellipses



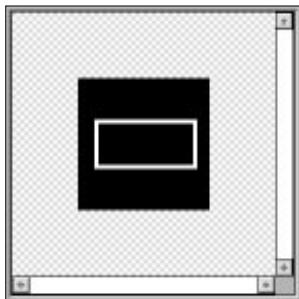
These icons let you create circles and ellipses. When you select them, the pointer will change to a disc. This indicates the centre-point of your new ellipse. Move it over your image, and hold down the left mouse button. You can now drag your ellipse into the required shape. Once you're happy with the results, release the button.



Rectangles and filled Rectangles.



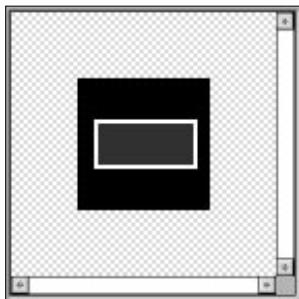
These can be created effortlessly. Just select the appropriate icon, and place the mouse over the top left corner of your new rectangle. Now hold down the left mouse button, and expand or contract your rectangle on the screen. When you release the button, your rectangle will be displayed in the chosen colour.



Filling an area with colour



The Paint-pot icon fills an area with a solid block of colour. The area to be filled should be completely enclosed. If there's a gap, the colour will leak out, and your entire image will be corrupted.



Erasing the image



Click on the CLR icon to wipe your current image off the screen. You'll now be able to start again from scratch.

Flipping the image

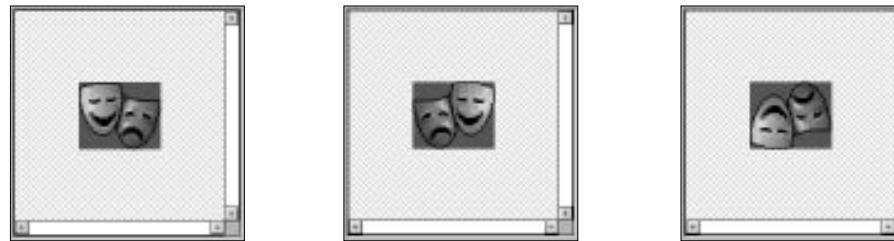
These icons flip your images in the selected directions.



Horizontal flip:
Reverses your image from left to right, just like a mirror.



Vertical flip:
Turns your entire image upside down.

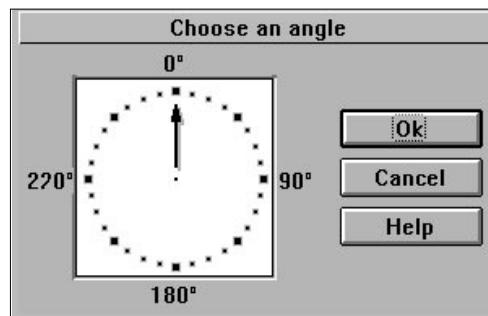


Rotating the image



You can turn your image using the Rotate icon.

When it's selected, you'll get the following dialogue box:



The arrow indicates the current direction. You can rotate your image by clicking on a new direction on the clock-face, and selecting "OK". Your object will now be turned to the new orientation.



Cutting and Pasting



The Picture editor lets you move whole sections of your image from one place to another. It's controlled using the "Select area" icon.

This defines a rectangular block which can be cut or copied from your image. When it's selected, you can move the mouse over the top left corner of your block and drag a box around your area. If you make a mistake, click over another part of your image and try again.

Once you've selected a block, you can save it into memory using the "Cut" option from the "Edit" menu. The original section will be replaced with a block of the transparent colour.

You can also use the "Copy" option. This will store your selected region in memory, without affecting the current image.

After you've grabbed your area, you can now copy it onto the image using the "Paste" command. This provides you with a rectangular box which can be used to position your block over the image. You can fix it into place with a single click of the left mouse button.

Moving a block

Klik & Play gives you a fast way of moving a block around your image. Select the block using the "Select area" icon. Then select the block and drag it around. When you release the left button and click elsewhere, the block will be pasted in the new position.

Shrinking an image

The shrink option removes any unnecessary transparent border areas from your image, reducing its size.

Importing an image

Loads your image from the disc in one of a number of formats. We'll be discussing this system in detail in Section 4.11. But for the time being, here are a few instructions to get you started:



Click on the "Import" icon.

Select your image from the disk using the file selector provided.

Click on the top left corner of the area you want to grab with the left mouse button.

Hold this button down, and drag a box around the region you wish to import.

Release the left button to grab your area into the current image. Any existing contents will be replaced.

4.4 Editing Active Objects

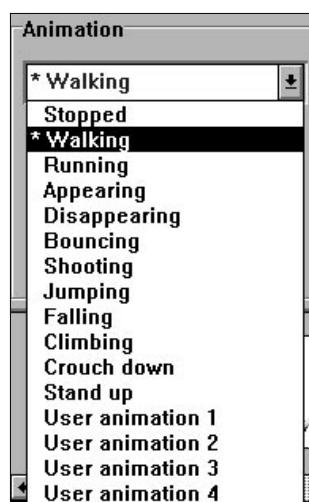
Active objects can be made up of many animation sequences, from Walking to Jumping to Disappearing. Objects can range in their animation possibilities - it really depends how they were originally designed. To make changes to an object's animation you have to call up the very powerful animation editor. Just click on your object with the right mouse button and select "Edit Animations...".

You'll now be presented with a powerful Animation Editor, which provides you with everything you'll need to generate professional animation sequences for your games.

The Animation Editor



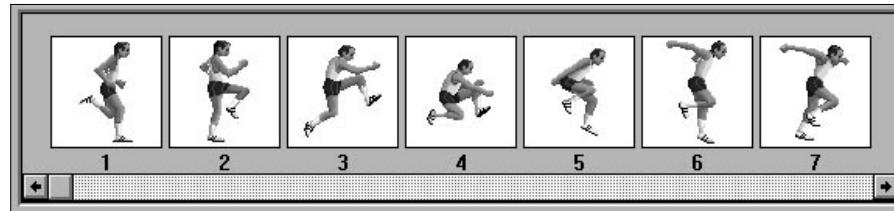
Klik & Play allows you to assign up to sixteen named animation sequences to each of your objects. You can choose the animation using an on-screen menu. This displays a full list of the available types on the screen. If a sequence has been defined, you'll see a small star to the left of the name. You can also use the cursor arrows to scroll through the list directly from the keyboard. Once you've made your selection, your animation sequence will be shown in the frame list, ready for immediate editing.



User defined animations

Klik & Play comes with a ready prepared list of animation types for common activities such as standing, walking, running around, or disappearing. You can also define up to four custom animations for your own use. Simply choose one of the "User animation" type from the selector, and click on the "Change animation name" button. You'll now be able to enter a new name for the animation, which will be saved automatically along with your game.

The Animation area



This is a small panel divided into rectangular "frames". Each frame holds a single picture which will be shown in the animation. When the object appears in your game, these frames will be drawn one after another to generate a smooth illusion of movement.

The Animation Editor places each frame in its own small box. If your image is larger than this box, it will be reduced to fit onto the screen. Below the animation area, there's a standard scroll bar. You can use it to slide the window through the entire sequence.

Images can be copied by dragging them to a new location with the left mouse button. After you release the button, your chosen image will be duplicated at the new position, inserting itself and shifting all the frames to the right by one frame.

As with objects, each frame has a pop-up menu which can be selected with the right mouse button (Mac: **⌘ Click**).

Edit Frame

Calls the Picture Editor to edit the image
Section 4.4 for more details.

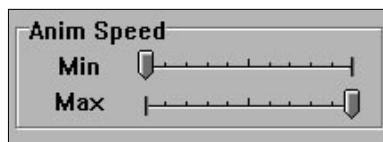
Insert Inserts an exact copy of the current frame at this position and shifts all the frames to the right by one frame.

Resize Zoom

Changes the size of your object using a smooth animation sequence.
See later.

Delete Erases the current image completely. Any frames to the right of this image will automatically be moved one place to the left.

Setting the Animation Speed



There are two ways of doing this, depending on the type of your animation.

The "Stopped", "Appearing", "Disappearing", and "Shooting" animations display your frames at a steady speed. So when you select them, you'll be presented with a single slider bar which sets the animation rate. Moving the slider to the right will speed your animation up. Shifting it to the left will slow things down.

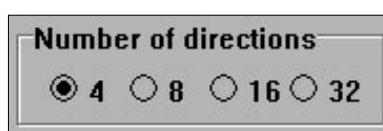
Other animations use a different system. They vary the animation rate according to the speed of your object on the screen. You'll now have two sliders to play around with:

Min: Enters the animation rate to be used when the object is moving at its slowest pace.

Max: Sets the rate which will be used when your object is moving at its fastest possible speed.

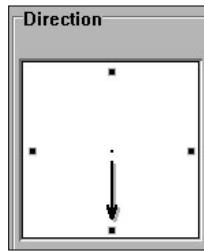
If the object's speed lies somewhere in between, Klik & Play will automatically adjust the animation rate to keep in step. Supposing you've defined a sequence for a walking character. You can use this feature to make his legs move faster as he increases speed.

Number of directions



The direction buttons control the number of angles you can turn an object on the screen. Each direction can have its own optional animation effect. To make life easy for you, Klik & Play will generate the entire rotation sequence. Just select the "Rotate" icon on the control panel and watch it go.

If you want to edit your objects manually, you can change the current direction by clicking on one of the points in the direction window. The presently selected direction is shown by an arrow.



Note that the animation effect looks smoother as you extend the number of directions. But since each direction needs its own animation, the memory requirements increase dramatically.

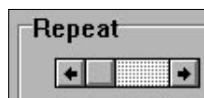
The direction of an object is linked to the way it moves. Take for example an overhead view of a race car like this:



If we set the number of directions to 32 and rotate this image through all 32 directions, it can now be "driven" around using the Race Car movement. If the car was moved using Mouse movement it would "drive" around the screen following your mouse movements.

If you were animating a walking man, you would most likely set-up animations of him walking left, right, up and down. So you wouldn't need 32 directions, just 4. We advise you to look at the animations of all the supplied objects, you'll learn how best to set-up objects depending on their required purpose.

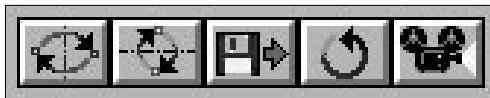
Repeat



Repeat enters the number of times your animation will be displayed on the screen. You can adjust it using a simple slider, or by typing in a new value from the keyboard. If the repeat count is set to zero, the animation will loop continuously. The value will be changed to "looping" to reflect this.

Loop back to frame: chooses the frame number to return to after the animation reaches the end of the sequence. It's normally set to the first frame, but you can change it to create an "intro sequence" which will be displayed once at the start of your animation.

The Command Icons



These icons control the various features of the Animation Editor. Each option affects the entire sequence of images. So you need to use them with a little care.



Horizontal flip

Reverses all the images from left to right, just like a mirror. Great for turning your characters to face the opposite direction.



Vertical flip

Flips the entire animation sequence upside down. Useful for things like spaceships, which need to change course during the game.



Import

Grabs a series of pictures from the disk and loads them into your animation sequence. Your images can be stored in either PCX, LBM, GIF, BMP or PICT (Mac only). You can also import FLI or FLC animation files as well.

Generally, the import system works in "Box" mode. This allows you to grab a whole series of objects in a single operation. Each frame of your image should be drawn with a rectangular border around them. Klik & Play will now be able to grab and separate the animation sequence straight from the picture.

Mac users: To access this box mode press **⌘** when you click in the picture

WARNING! When you're creating your images, it's vital to make sure that they use the same colour scheme as Klik & Play. Otherwise you could get some odd effects when the frames are remapped to Klik & Play's own palette. Also note that the new animation will replace any existing frames in the animation. If you'd prefer to insert your images into an existing sequence, you can turn this feature off using the "Replace mode" option from the "Edit" menu.

See Section 2.0 for a full explanation.



Rotate:

This option automatically defines the animation sequences needed to turn your object through every conceivable direction. Not unnaturally, it can consume vast amounts of memory, especially if you've specified 16 or 32 directions. But it's great for defining things like race-car objects which need to have a different animation for each direction.



View:

Click on this icon to see how the finished animation will appear in your game. Click again to remove it from the screen if the animation is looping.

The Edit Menu

The Edit menu allows you to copy your images between frames. It can also copy whole sequences from one animation to another. So you can re-use the same set of images

several times, changing their speed or orientation to generate a completely new effect. The Edit commands are called from the menu bar at the top of the animation editor. Before you use these options, you'll need to select some images. You can highlight a single image by just clicking on it with the left mouse button. If you want to edit several images, you simply hold down the Ctrl (Control) key, and select each frame in turn. If your images are off screen, use the scroll bar to move them into view.

Cut Removes the chosen frames from your animation, and grabs them into a safe area of memory.

Copy Copies your frames into memory without affecting the current animation.

Paste Pastes a previously saved memory area back into the animation. Select the type of your animation, click on "Paste", and move the mouse over the destination frame. You can now click on the left button to insert your frames into the animation. If replace mode has been set, any existing frames will be overwritten.



These next options are only selectable by pressing **⌘** click when pointing at an animation frame

Delete Erases all the selected frames from the animation.

Select all Highlights the entire animation sequence in a single operation.

Unselect De-selects any highlighted frames.

Replace Toggles replace mode. If it's on, anything you paste onto the animation will completely erase the present contents. When it's off, frames will be inserted.

Here's an example of how you might use the Edit menu's commands:

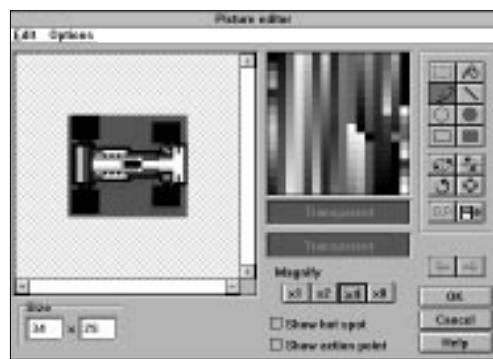
Imagine you've designed a man that walks right. You want to have the same animation for him walking left. This can be achieved very quickly:

1. Choose the "Select all" command from the Edit menu.
2. Select "Copy"
3. Click on the left direction box.
4. Select "Paste" and click on the first empty frame.
5. Now click on the "Reverse Horizontally" icon.

The object now has a left and right animation, much quicker than creating the left walking animation from scratch.

Editing a frame of the animation

Any single frame can be edited by either double clicking on its image, or selecting the "Edit frame" option from the pop-up menu (press the right hand mouse button when over a frame). You'll now be presented with a standard picture editor which can be used to draw your images.



This is basically the same as the picture editor used to edit backdrop objects. So we'll limit ourselves here to a quick summary of the various features:

The Drawing icons

Chooses the drawing operation to be performed. Available options include: select area, draw, line, ellipse, filled ellipse, rectangle, filled rectangle, and fill. When over the image, the mouse will change shape to reflect the selected option.

The Image icons

Let you flip, rotate, shrink, clear and import a new image.

The Object window

Contains the image you are presently editing. You can draw on the screen by simply clicking on the selected point with the left mouse button. The right button provides a quick way of selecting the colour. It grabs the colour you are currently pointing at from the image and assigns it to the pointer. If you want to move in closer, you can change the scale using the Magnify icons.

The Palette

Picks the drawing colour. If you're using more than 256 colours, you can also mix up a specific shade with the RGB slider bars.

The Frame arrows

Moves to the next or previous frame in the animation sequence. The image you've just been editing will be preserved

The Hot Spot

Sets the Hot Spot of the image.

The Action Point

Fixes the Action point of the image.

The Size

Changes the size of your image. Small ones are fastest.

Setting the Hot Spot of an Object

The Hot Spot is an invisible handle used to drag your images around on the screen. It's used as a reference point for the X,Y co-ordinates of your object. Each image can have its own separate hot-spot. As a default, when you create a new active object the hot spot is automatically positioned at the top left corner of each image. However, you can actually move it anywhere you like. So a character in a platform game might have the hot spot near its feet, and an attacking alien might have a hot spot at its centre.

You can move the hot spot by clicking on the Show Hot Spot option from the Picture Editor. A cross-hair will now appear in the image window. When you move the mouse over the hot spot position, the cursor will change to an arrow. You can now drag the hot spot to a new position with the left button, or type in the co-ordinates over the existing values.

Setting the Action Point of an Object

This is the point on the image where an action will occur. It's typically used for things like bullets, which need to be released from a specific part of the object, such as a gun. Each frame of an animation can have a different action point. So as the gun moves, the firing point can change as well.

When you select this option, a cross-hair will appear in the image window indicating the current position of the action point. You can use it to drag the action point to a new position. You can also enter the X and Y co-ordinates directly from the keyboard using the boxes provided.

Note that you can't display the hot spot and the action point on the screen together. Only a single option can be changed at a time.

It's also possible to set the Hot Spot and Action Points using the numeric keypad. We've mapped out the most frequently used positions like this:

7 Top Left	8 Top Centre	9 Top Right
4 Middle Left	5 Centre	6 Middle Right
1 Bottom Left	2 Bottom Centre	3 Bottom Right

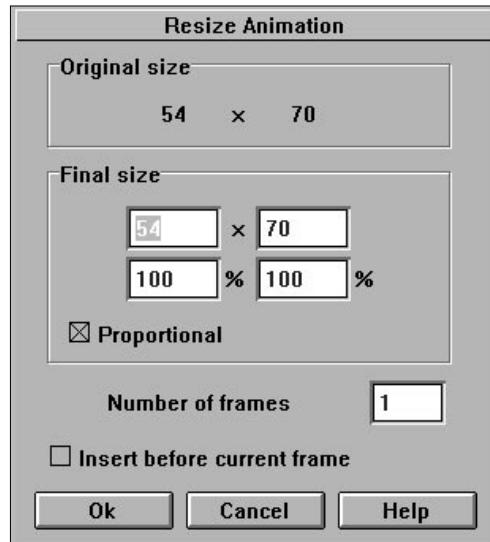
Ensure that the Num Lock is on when you use these quick keys. Mac users must press **⌘** key with the numeric key.

Creating a Resize or Zoom sequence

Klik & Play lets you take an image, and change its size in a series of steps. So you can gradually shrink a bad guy into the distance, or enlarge a game-over message to fill the screen.

The re-size option is called up from the image's pop-up menu. This appears when you click on an image with the right mouse button (Mac: **⌘ Click**).

Once it's selected, you'll get the following control panel.



"Original size" shows the width and height of your current object.

"Final size" sets the new size of your object in each dimension. You can enter the width and height directly, or as percentage of the original size.

The "Proportional" option ensures that the shape of the object will remain the same as the size changes. If it's set, you'll only need to change a single dimension at a time. The other will be calculated automatically to keep the object in its existing proportions. If the "Proportional" system is turned off, you'll be able to squeeze or stretch your images in any direction.

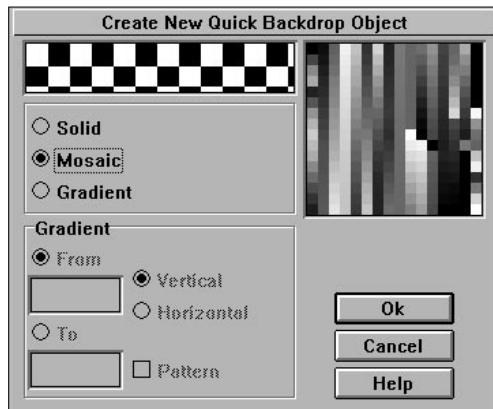
"Number of frames" enters the number of images which will be created for your resize sequence. The more frames you use, the smoother the effect, and the greater the memory requirements.

"Insert before current frame" places the finished sequence before the frame you clicked on to access Resize Zoom. The frames will be created from right to left. If this check box is off, the animation will be created from left to right and after the current frame.

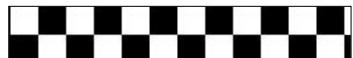
4.5 Editing a Quick Backdrop Object

Quick Backdrop objects provide a simple way of generating attractive backgrounds for your games, without consuming valuable memory. They can be edited by selecting the "Edit Backdrop..." option from their pop-up menu.

You'll now see the following dialogue box:



The sample box holds a small area of your new image, so you can see how it will look on the screen.



The option buttons

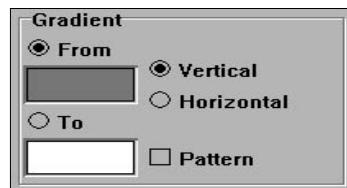


These select a fill pattern for your object. There are three possibilities:

Solid: Generates a smooth block of colour. You can choose this colour by simply clicking on one of the shades in the palette window. If you're using more than 256 colours, you'll be able to set the shade directly using the RGB sliders. Your new colour will now be displayed in the sample box.

Mosaic: This will create an interesting tile effect, similar to Windows wallpaper/Macintosh desktop patterns. When you click on Mosaic, you'll be prompted to design a tile for your object using the Picture Editor. This tile will now be used as a fill pattern, and will be repeated throughout your object. You'll see an example in the sample box.

Gradient: The gradient option lets you create attractive sky-lines or seascapes. It's also good for generating 3D cylinders or tubes. It displays your backdrop as a smooth wash of colour. Klik & Play takes two colour values, and gradually varies them to produce your finished pattern. The result is calculated automatically by Klik & Play, and depends on the number of colours between the two values, the gradient direction, and the size of your object.



From: Enters the first colour in your gradient. Use the palette window to select the shade.

To: Click on this button to set the last colour in the gradient. The colour should be chosen from the palette window as before.

Horizontal:
Changes the colours from left to right.

Vertical: Adjusts the colours from top to bottom.

Pattern: Adds a "dither pattern" to the effect. This smoothes out the result.

As you make your changes, Klik & Play will show a small example of the gradient in the sample window. You may need to experiment a little to create the effect you want.

4.6: Editing a Text object

Text objects are ideal for generating various messages and title screens for games. They can be edited by selecting them with the right mouse button, and choosing the "Edit Text..." option from the resulting menu.

A dialogue box will now be displayed:



The Paragraph Window

Holds a list of paragraphs which have been assigned to your text object. You can edit this text by double clicking on a particular line of text with the left mouse button.

Normally, only the first paragraph will be displayed on the screen. But you can replace this paragraph with an alternative paragraph using a simple action from your game. So a "Game Over" message might display either "Congratulations" or "Bad luck" depending on the result of the game. This is explained at the end of this chapter.

Also note that the items are displayed in a standard format, no matter which font style you've selected. You will see the effects when you return to the Level Editor.

The Edit Text Commands

The Edit... button.

Click this button to edit the currently highlighted text. A window will open up to allow you to type in your changes. Alter the text as required, and then click on 'OK'.



You can now move around the text using the normal cursor keys. When you're happy with the results, hit the Return key. Pressing Control and Return allows you to split lines within a paragraph.

The Clear button

This erases the present line, leaving it totally blank.

The Add button

Adds a new line of text to your object.

The arrow icons.



Move a highlighted line up and down through the message window.

Selecting the font

The "Select font..."

Button defines the appearance of your text on the screen. Klik & Play lets you display the text in any of the available TrueType fonts. These fonts can be chosen from the following selector:



Font: Enters the name of your font. You can type the name into the box, or the font can be chosen directly from the font list.

Style: Selects the style of your text. You can display your text in Regular, Bold, Italic, or Bold Italic.

Size: Sets the size of your characters in "points". Each point is 1/72 of an inch high.

Colour: Chooses the colour of your message using a menu. There are sixteen possible colours.

Effects: Adds a strike-out or underline effect to your text.

TEXT

TEXT

TEXT

TEXT

Note that if you select a non-standard font, and try to run your game on a machine which doesn't have it, the nearest equivalent will be used instead.



The Mac font selector is very similar but does not offer Strike-out.

Changing the text colour

You can choose the text colour in two ways.

1. Call up the Font Selector from the "Edit Text..." command, and click on the "Colour" menu.
2. Use a separate "Colour..." option from your object's pop-up menu.

Changing the display format

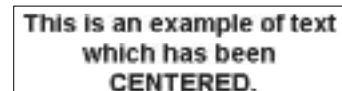
Klik & Play allows you to display your text in a number of different formats. You can choose between them using an "Alignment" option from your object's pop-up menu.

There are three possibilities:

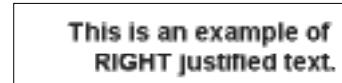
Left Displays the text just as you typed it, from left to right.

This is an example of
LEFT justified text.

Centred Neatly centres the text in its window.



Right Moves your text so that the last character is at the right hand corner of the window.

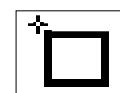


This is an example of
RIGHT justified text.



Make Invisible

When you select this option your text object will disappear and will be replaced with a small icon. The purpose of Make Invisible is to allow you to display text only when a specific event occurs, it will not appear throughout the entire game.



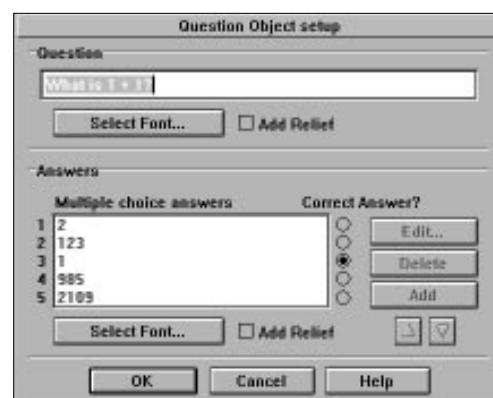
New Text Object

This option allows you to copy a block of text and paste it onto the play area wherever desired. When you select this option your text will be replaced by a small icon. Use this icon to position your text object.

4.7: Editing a Question object

Question objects provide a simple way to add multiple choice questions to your games. You can also use them to receive player's commands.

Changing a Question Object is easy. You just call the "Edit Question Object..." option from the pop-up menu, and edit the object on the screen.



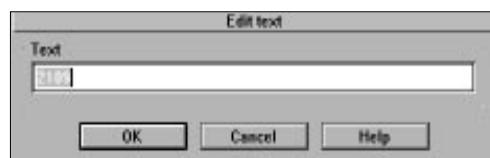
Changing the Question

You can change the question by moving the pointer over the Question box, clicking on the left mouse button, and typing in your new text. It's that simple.



Editing the answers

You can edit an answer by just double clicking on the text. A dialogue box will be displayed allowing you to make your changes. When you're satisfied, click on "OK" to assign the text to your new object.



The Editing buttons



Edit Changes the currently selected answer. You'll be presented with a dialogue box to edit your text.

Add Adds a new answer to the list. The Edit text dialogue box will be called automatically so you can enter your answer. Each question can have a maximum of five answers.

Delete Removes a highlighted answer from the list.

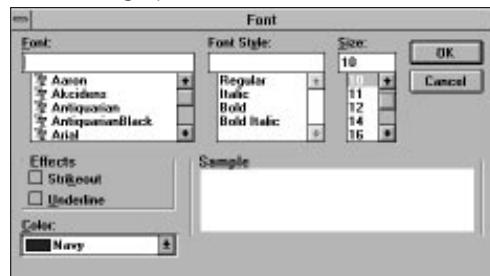


The arrow icons move the currently selected answer through the list. Before using these icons, you should click on an answer with the mouse. Otherwise they'll have no effect.

Selecting the font

You can change the appearance of the Question and Answer text independently, using two "Select Font..." buttons.

These bring up a font selection box.



Font: Lets you choose a TrueType font for your text

Style: Allows you to display your text in Regular, Italic, Bold or Bold Italic.

Size: Enters the height of your text in "points".

Colour: Selects the colour of your text.

Choosing the Colours

You can change the colour of your question and answer texts in two ways.

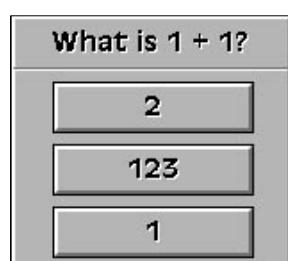
1. Call up the appropriate "Select Font..." option, and select the "Colour" menu.
2. From the "Colour..." option from your object's pop-up menu. Choose "Question" and "Answers" to set the required colour.

Setting the correct answer

The "Radio Buttons" to the right of the Answer Window select the correct answer to your question. Just click on a button, and the appropriate answer will be entered as correct.

Setting a relief effect

The Relief options add a simple 3D effect to your text. Here's how it looks on the screen:



4.8: Editing a Score object

Score objects provide a visible read-out of the player's score. They can be changed using a simple option from their pop-up menus. Just click on the object with the right button, and select "Edit Score...". A number editor will be displayed.

The Number Editor



As you can see, this is very similar to a section of the Animation editor. The score is generated using a series of digits from "0" to "9". Each digit is held as a separate frame, just like an animation. You can edit a digit by either double clicking on its image, or holding down the right button, and selecting "Edit Frame" from the pop-up menu. You'll now be presented with the Klik & Play Picture Editor. See section 1.2 for more details.

Using a TrueType font for the score.



To make life easy, you can generate all ten digits automatically from a TrueType font. Click on the "Import new font..." Icon, and choose your font from the selection window. When you have finished, select "OK". The digits will now be grabbed from the font, and loaded into the Score Editor, ready for subsequent editing.

Viewing the effect



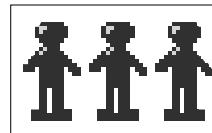
Click on the "View" Icon to see the digits increasing, as they would during a game.



The "Import Picture option" lets you grab your digits directly from the disk. Each digit should be enclosed in a rectangular box. This will allow the capture system to enter all ten numbers straight into memory. See Section 4.11.

4.9: Editing a Lives object

These objects provide a visible display of the number of the player's lives. When they are first created, they will look like this:



You can add in your own effects by selecting "Edit Lives..." option from the object's pop-up menu.

This will bring up the following dialogue box:



The "Display as" menu chooses how your lives will be shown on the screen.

Picture Displays each life as a separate image. When it's selected, you'll be presented with a Picture Editor which can be used to draw your object on the screen. See Section 1.2 for more information.

Numbers Displays your remaining lives as a simple number. The appearance of this number can be defined using the Number editor we explained in the "Editing Score" chapter.

Pick image from object

Picks an image from a library, and assigns it to your lives object.



The Library selector

Lets you choose a library containing your image. You can scan through the available libraries using the scroll bars to the left of the box.

The selection window

Contains all the images assigned to the current library. These images can be selected by clicking on their icons.

Edit

This button edits your current lives object, calling up the appropriate editor as required.

Changing the display arrangement of your lives

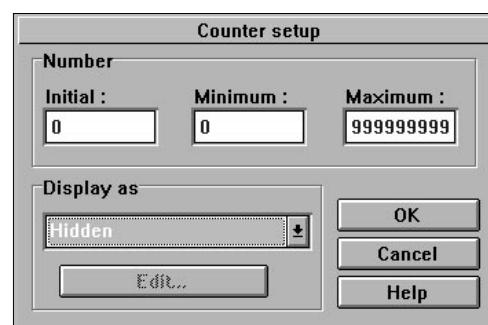
Normally, your lives will be displayed in an invisible window. This window appears whenever you select a lives object with the mouse. By dragging it with the left button, you can rearrange your lives on the screen. You can use this feature to display the objects in a vertical column rather than a horizontal row.

4.10 Editing a Counter Object

As a default, counter objects are completely hidden from the player. But they can also be displayed directly on the screen, to create things like fuel gauges and temperature read-outs.

You can set these effects using the "Edit Counter..." option from your object's pop-up menu.

This displays a useful little dialogue box on the screen:



Initial: Sets the initial contents of your counter.

Minimum: Specifies the smallest possible value.

Maximum:

Enters the largest value the counter can reach.

Display: Selects the display option from a menu. As a default, it's set to "Hidden". So your counter will be invisible.

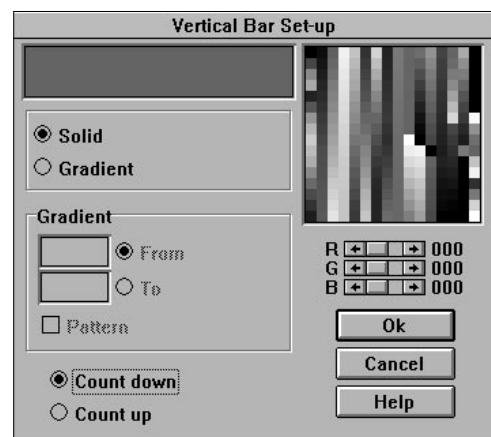
Displaying your counter as a number

The "Numbers" option shows the counter as a number. Selecting this option will bring up the Number Editor we explained in Chapter 4.8 - Editing a Score Object. You can use it to choose a new text style for your counter.

Displaying your counter as a vertical bar

The "Vertical Bar" option displays your counter as a vertical strip. The scale is worked out automatically depending on the minimum and maximum values you've previously set.

You can draw the bar using the following editor.



This is very similar to the Quick Backdrop Editor. The only real difference, is that the Mosaic option is no longer available

Solid: Fills the bar will a solid block of colour chosen from the Palette window. If you're using more than 256 colours, you can mix the shade with the RGB sliders.

Gradient: Divides the bar into horizontal strips, each with a different colour. The colours are chosen using the "From" and "To" buttons.

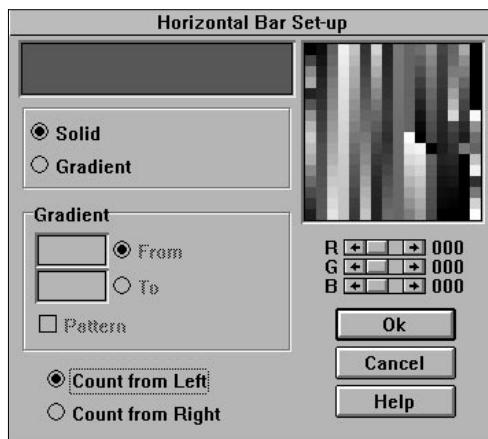
Pattern: Smoothes the gradient effect by overlaying it with a neat cross-hatch pattern.

Count down:
The bar will increase down the screen whenever it is increased during the game.

Count up: The counter will grow the bar upwards as it is increased.

Displaying your counter as a Horizontal bar

If the "Horizontal Bar" option is chosen the following dialogue box will appear:



As you can see, this is almost identical to one used by vertical bars. There are only a few changes.

Gradient: Modifies the colour from left to right depending on the settings of "From" and "To".

Count from Left:

Begins the bar from the left and increases to the right.

Count from right:

Displays the bar from the right and counts to the left.

Setting an Animation sequence

The "Animation" option allows you to assign a fancy animation sequence to your counter. Selecting it will bring up a standard Animation Editor which can be used to define your sequence. See Section 4.4 for full details.

The Animation will start from the first frame, and progress as the counter increases. The size of each step will be worked out by Klik & Play, depending on your minimum and maximum values.

4.11 Creating new objects

Klik & Play comes with a wide selection of objects on disk, which should be suitable for most situations. However, at times you may find it necessary to define additional objects by hand, and to do this it is necessary to use the "Toolbar".

The Tool bar

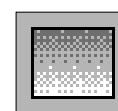
The Toolbar consists of a group of icons which allow you to create new objects for your games. You can use it to add fancy messages, design your game's scoring system, and ask the user questions.

You can access these features by simply clicking on the "Tools" icon from the Level Editor. If you're not in the Level Editor, call the "Goto Level Editor" option from the "Game" menu before proceeding.

The following icons will appear:

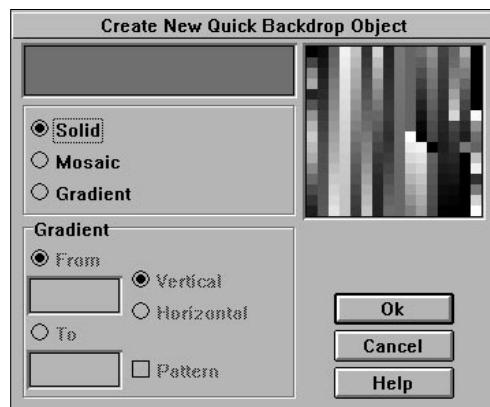


Creating a Quick Backdrop Object



Creates a New Quick Backdrop Object. When it's selected, you will see the following screen.

There's a full explanation of these options in Section 4.5



Here's a quick summary of the various features:

The Palette Window

Selects a colour for your object.

The Sample box

Displays the current effect.

Solid

Draws your object using a solid block of colour.

Mosaic

Creates your object out of a group of tiles, just like Windows Wall-paper/Macintosh desktop patterns.

Gradient

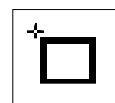
Generates an attractive gradient effect.

So how do we create one of these quick backdrop objects?

Enter the Level Editor, and click on "Tools" to bring up the toolbar. Select the first icon, and click on the left mouse button. You'll now be presented with the Quick Backdrop Editor.

In the top right hand corner you will find a series of coloured blocks arranged in a square. This is the Palette window, and it's used to choose a colour for your object. Move the mouse over one of the colours, and press the left mouse button. The colour you've selected will appear in the Sample box.

You've now done everything you need to create a simple backdrop. So you can return to the Level Editor by clicking on the "OK" button.



The next task is to place the new object onto the play area. Whenever Klik & Play creates an object, it enters a special insertion mode. The pointer will change shape to reflect this.

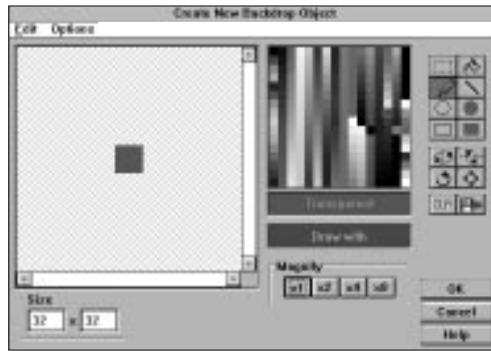
You can now position this pointer over the play area, and click on the left button to drop your object into place.

It is possible to move these objects at any time by simply selecting them with the mouse, and holding down the left button. Your object will now be assigned to the pointer, allowing you to drag it to a new location as required.

As a default, all Quick Backdrop objects are created in a standard size. You can adjust their size by clicking on your object, and selecting one of the square control points along its borders. Each point stretches the object in a particular direction. Just hold down the left mouse button, and drag the box into the new shape that you desire. When you release the button, the backdrop will be re drawn in your chosen size.

Creating a Backdrop object

This option creates a new backdrop object for your games. You can draw these backdrops using a powerful Klik & Play Picture Editor. See Section 4.3.



The Editor works as follows:

Select the "Tools" button from the Level Editor to display the toolbar, and click on the "Create New Backdrop Object" icon to call up the Picture Editor.

When it's first selected, the Picture Editor shows your object in its actual size. This is too small for fine drawing work, so you should click on the "x4" icon to zoom in closer. Initially, the image will be filled with the transparent colour (grey). So you will see it as a grey block.

We'll now have a go at drawing one of these objects for ourselves.

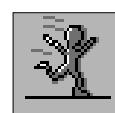
Begin by choosing a colour from the Palette window. Just click on a colour with the mouse, and it will be assigned to the pointer. A sample box will show the colour you selected.

Next, you'll need to choose a drawing operation. Place the pointer over the filled ellipse icon, and select it with the mouse.

Now move over to the centre of your image, and hold down the left button. As you drag the mouse downwards your disk will expand on the screen. When you're happy with the result, release the mouse button, and return to the Level Editor by selecting "OK".

Your new image will be assigned to the mouse, and you can drop it into position with a single click of the left button. A copy will now appear on the object shelf, ready for future use

Creating an Active object



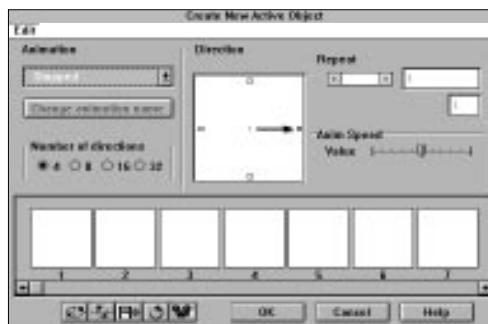
Active objects can be created with ease. You simply click on the appropriate icon from the Toolbar, and draw your animation using the Animation Editor.

You can find a detailed explanation in Section 4.4.

This is how it works:

Enter the Level Editor, and select the "Create New Active Object" icon from the toolbar. It is the third icon from the left.

The Animation Editor will be displayed.



Your first task, is to choose an animation type for your object. Klik & Play lets you assign up to sixteen animations to any active object. At the beginning, the animation is set to "Stopped". Click on "Stopped", and move the mouse down through the resulting menu, until you've highlighted "Appearing".

The animation is divided up into small boxes called "frames". Each frame can contain a single image in your sequence. When you are starting out, all the frames are empty. We will now create a new image for one of these frames.

Select the first frame in the animation sequence with the right mouse button, and choose the "Edit Frame" option. You'll be presented with the Picture Editor as before.

If the object seems small, click on the "x4" icon to expand it into view. You can now select a colour for your object. Move the mouse over the Palette window, and click on the colour of your choice.

The next step is to draw your object on the screen. Let's generate a simple bar.

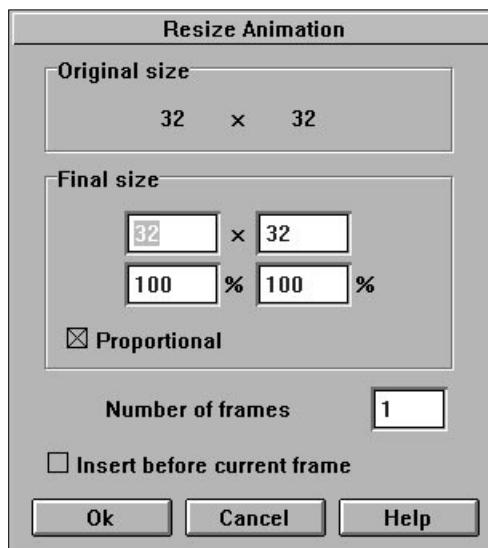
Place the mouse over the filled rectangle icon, and select it with the left button. Move the pointer over the top left corner of your image, and hold down the left mouse button. You can now expand your box onto the screen by dragging the mouse downwards and to the right. When it completely fills the image, release the button to lock it into place. If you make a mistake, erase the picture using the "CLR" button, and try again.

Click on "OK" to return to the Animation Editor.

The new bar will be displayed as the first frame of your animation. We could repeat this process to edit all the subsequent frames in the sequence. But since this would take a little time, we will use the "Resize Zoom" feature. This is one of the most powerful options of the Animation Editor, it creates an entire animation sequence out of a single image!

Move the mouse over the frame containing your bar, and click on the right mouse button to get the pop-up menu (Mac: **⌘ click**). Now select the "Resize Zoom" option.

A dialogue box will be displayed:



Click on the "100" near the "Final size" box, and hit the backspace to delete it. Enter a value of 400 to increase your object by a factor of four hundred percent. Next, you'll need to enter the number of steps for the re-size sequence. Select the "Number of frames" box, and replace the "1" with a "10". Click on "OK" when you've finished.



Klik & Play will now take your image, and gradually expand it to four times its original size. You can check out the effect by selecting the "View animation" icon.

Select "OK" to return to the Level Editor. Finally, position your object on the play area with a single click on the left button.

Creating a Text Object



This icon allows you to display a simple message over the playing area.

You can find a detailed explanation of these objects in Section 4.6.

Here's a quick example:

Click on the toolbar, and select the "Create New Text Object" icon.

The following dialogue box will be displayed:



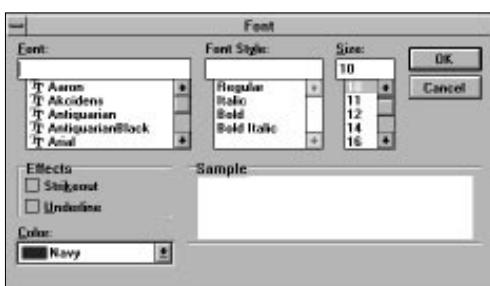
To the left, there's a large window for your text. Each text object can contain a whole list of paragraphs, ready for instant use.

Double click on the first item in this window, or select the "Edit" button from the panel. You'll now be presented with a dialogue box to enter your message.



Type in some text, and assign it to your object by selecting "OK". It will immediately appear in the first line of the text window.

Just to make life interesting, we'll display our message in a new font. Click on the "Select Font..." button to bring up a standard font selector.



The "Font" menu chooses the typeface from a menu. Select the font called "Arial". An example of your new font will be shown in the sample box.

Once you've selected your font, you can set the text style. Move the pointer over the menu and choose the "Italic" option.

You can also change the size of the text. Try calling up the size menu, and entering a value of fourteen.

Finally, let's select the colour of our text. Klik & Play gives you sixteen possible colours to choose from. Click on the colour menu, and select a colour of your choice.

Now you've defined some text effects, click on the "OK" button to return to the Text box. For the moment nothing seems to have changed. You'll only see the results when you display your messages on the screen. Select "OK", and position your text over the play area, locking it into place with the left button. Your new text will now be displayed using the chosen settings.

It should look something like this:



Creating a Question Object

Klik & Play has all the answers when it comes to games creation! This type of object allows you to display multiple choice questions during a game - great for educational and adventure games.

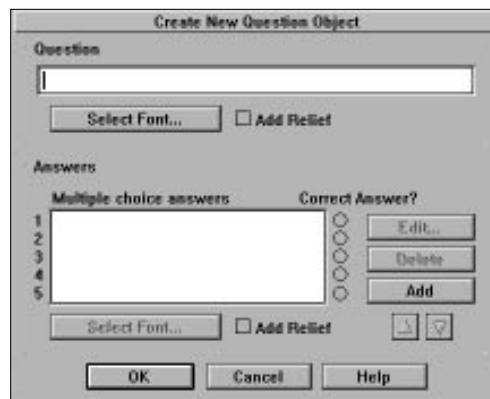
Question objects let you to ask a question, and check for an answer from the user. You can then test this answer, and perform an appropriate action in your game.

We'll now create a simple Question and Answer object for you to play around with:



Enter the Level Editor, and call up toolbar using the "Tools" icon. Click on the "Create New Question Object" icon.

You'll be presented with the following screen:



At the top, there is a blank line, in which to enter your question. You can type this directly from the keyboard. For our example, enter the line:

What do you get when you multiply six by nine?

It's a simple enough question. Let's add in a few answers.

Click on the "ADD" button to enter a new answer. Type "Fifty-Four" into the resulting box, and select "OK" to assign it to your object.

Repeat this procedure twice, adding the lines:

"Forty-Two", and "Fifty"

Now you've set up the question, all that's remaining is to tell Klik & Play which answer is correct. Alongside the answer window, there's a row of circular "Radio buttons". Click on the one near "Fifty-Four" to enter this as the right answer.

When you've finished, select "OK" to return to the Level Editor. Move your object on the play area and click on the mouse to fix it into position. Here's what your object should look like:



In a real game, you'd also need to assign an action to this object, so that it would respond to the player's commands. See Section 5.0 for more information.

Creating a Score Object



If you want to display the player's score, you will require the feature "Create New Score Object". Score objects automatically keep track of the player's progress, and show a running total on the screen.

See Section 4.8 for full details.

Adding a score object is simple. Here's a quick example:

Enter the Level Editor, and call up the toolbar using the "Tools" button. Now select the "Create a New Score Object" icon.

The pointer will change to insertion mode, and can be moved over the play area to your chosen position. When you click on the left mouse button, a "0" will be displayed. This is the current score. Since you've yet to play a game, it's set to zero.

Creating a Lives Object



Lives objects show the number of "lives" remaining to the player.

We'll be talking about these objects in detail in Section 4.9. For now, let's create a simple lives object as an example.

Enter the Level Editor, and select the toolbar with the "Tools" button. Click on the "Create New Lives Object" icon to add a new lives object to your level.

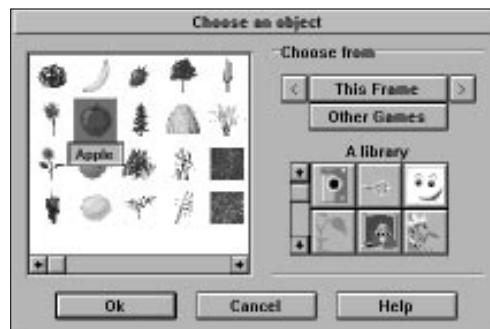
The pointer will be replaced with a small picture of a man. This is the default image used for the lives. Move the man over the play area, and click on the left mouse button to drop it into place. The object will now expand to show the current number of lives (three).

As you can see, the default image is rather dull. So we'll immediately change it for something more interesting.

Select the lives object with the right mouse button, and highlight the "Edit lives..." option from the resulting menu. This will bring up the following screen.



The option you're looking for, is in the "Display As" menu. Move the mouse over this menu, and highlight "Pick image from Object". Here's what you'll see:



To the left, there's a box holding a list of the available images from the current level. On the right, there is a list of library icons, which can be moved into view with the scroll-bar.

Click on the scroll-bar to shift down through the list, when you get to the "Vegetation" library click on it. A list of images will now appear in the selection window. Move the mouse over the apple, and highlight it with the left button. Finally, click on "OK" to grab the apple for your lives object. You'll be returned to the "Lives" set-up. Klik "OK" again to jump back to the Level editor.

The men will be replaced by three rosy apples. Well, some people find apples interesting.

Creating a Counter Object



These objects let you create counters which change during a game. You can use them to generate visible read-outs on the screen. You can also hide them away in the background to trigger an action after a set period of time.

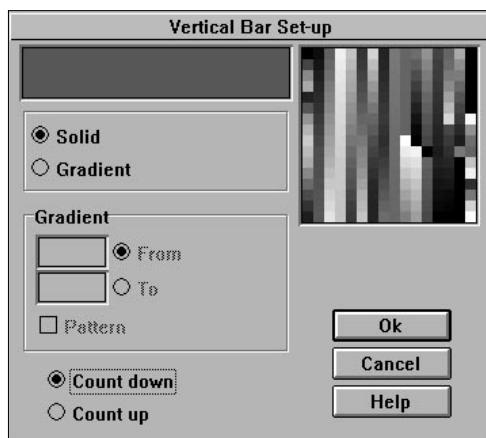
Counter Tutorial

Enter the Level Editor, and call up the Toolbar from the "Tools" icon. Select the "Create New Counter Object" at the far right.

You'll now be presented with the following dialogue box:



Normally, all these counters are invisible. You can change the display method using the "Display as" menu. Click on "hidden" and select "Vertical Bar" from the list.

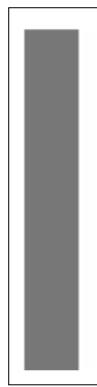


Choose a colour from the palette window on the right. You'll see the effect in the sample box. Click on "OK" to return to the Counter Set-up.

Select "OK" again to jump back to the Level Editor.

Finally, move the counter object on the play area, and click it into place with the left button.

If you've got it right, your counter should look like this:



Cloning an object

Once you've created an object, and placed it onto the play area, it will automatically appear in the Object Shelf. You can now select this icon with the left mouse button to copy the object into your game. These "cloned" objects share the same set of attributes. So if you want to make any changes, you only need to edit one of them to modify all the copies on the screen. This system is very useful when creating arcade games. You can define an alien, set it in motion, and clone it dozens of times to produce an entire attack wave.

Copying an object

If you want your objects to be independent, you can duplicate them using the "New object" options from their pop-up menus.

Active objects and Backdrop objects are especially clever. They have a "New level object" command which lets you convert them into a new type during the copying operation.

The precise effect depends on the type of objects you are trying to convert.

Active Object to Backdrop Object

Converts just the first frame in the animation sequence of the active object to makeup the single frame Backdrop object.

Backdrop Object to Active Object

Generates an object which looks identical to the original backdrop object. But since the new object is active, it can be animated and moved as required.

Active or Backdrop Object to Quick Backdrop object

Creates a Quick backdrop object using the mosaic option. The new object looks exactly the same as the original, but it can be re-sized to generate an attractive wallpaper effect.

All other object types create an identical copy of themselves on the screen. However, since each new object is totally separate from its "parent", it can be edited individually.

Importing an Object from a drawing package

Any Klik & Play object can be imported directly from your favourite drawing package. The Picture Editor and the Animation Editor both have an "Import" option for just this purpose.

Your images can be saved in either PCX, LBM, GIF, BMP or PICT (Mac only). You can also import FLI or FLC animation files as well.

Before we go into detail, here's a step by step guide to importing an image.

Importing a single image

Enter the Level Editor and click on the "Tools" icon.

Select either the Active Object or Backdrop Object options as required.

When the editor is displayed, click on the "Import" icon.

A file selector will appear allowing you to choose a picture from the disk. You can check a picture's appearance using a "View" button. This will display your picture in a standard window, which can be closed by a single click.

Once you've selected your file, it will be loaded into a window, ready for grabbing. If you've called "Import" from the Animation Editor, move to the "Capture Menu" and turn off "Box mode" to select a single image.

Move the pointer over the top left corner of your image, and hold down the left mouse button. Drag the mouse to expand a box around your area. When you're happy, release the button to grab your image into memory. You'll be returned to the appropriate editor to make some changes.

Importing several images

In this case, you should first create an Active object using the Toolbar. When the Animation Editor appears, click on the "import" icon, and choose your image from the selector.

As a default, the import system works in "box" mode. This will search your picture for a series of images, enclosed by single lined boxes. Anything it finds will be removed from the box, and loaded straight into your animation sequence.

Getting the colours right

Klik & Play uses a fixed range of colours, which CANNOT be changed by your games. So if you try to load a picture with a different range of colours, the result may look very strange. You can synchronise your colour schemes by loading the file "KNP256.PCX" into your drawing package before you create your images.

The Capture Menu

The "Import" option provides a "Capture" Menu with the following options:

Transparent Mode

If it's on, any areas drawn in colour zero will be omitted from the final image.

Box mode

Allows you to grab several objects at a time. Each of your objects should be enclosed by a single pixel lined box. It will now be selected automatically by Klik & Play. Turn this mode OFF to grab a specific area from a picture.

Full Window

Grabs the entire picture, and loads it into the appropriate editor. If box mode is on, Klik & Play will grab box images from the whole screen.

Cancel

Aborts the operation and returns you to either the Picture/Icon Editor, or the Animation Editor as required.

Mac users should press **⌘** when they click on the picture to obtain these options

4.12 Resizing Objects

The level Editor provides you with a powerful Re-size option which lets you change the shape or size of your objects at will. The procedure is simple. Just select "Resize..." from the object's pop-up menu, and drag the re-size box to the desired size. A few seconds later, you'll have your new object ready for use.

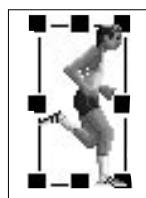


Here's a detailed explanation of the various options:

Resizing an Active or Backdrop object

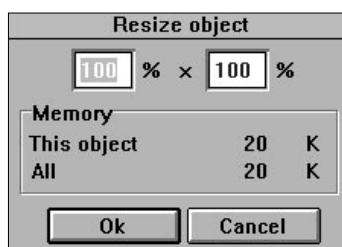
You can zoom or reduce these objects by simply selecting them with the right mouse button, and highlighting the Re-size option from the resulting menu.

A "re-size" box will now appear around your chosen object. Along its sides, you'll find eight small control points. Each point stretches the object in a specific direction.



These points can be dragged with the left mouse button to expand or contract the box on the screen. When you release the button, and select "OK", the object will change size to fit into the new area.

You can also choose the size directly from a control panel.



At the top, there are two numbers expressed as percentages. The number on the left shows the percentage increase/decrease to the object's width, and the one on the right shows the amount you've changed its height. You can adjust these values by selecting the number with the mouse, and typing in a new percentage. You can now click on the "OK" button to re-size your object by the selected amount.

If your object is large, or contains a lot of animation, you may have to wait a while for the process to complete. An expanding bar will be displayed to let you track its progress.

Warning! If you re-size an Active object, you'll change the size of every frame in its animation sequences. So if your objects are big, you'll need a lot of spare memory, and even more patience!

Also note that the quality of your images will deteriorate badly if you change their size by too much.

Resizing a Quick Backdrop object

This is really easy, as a re-size box is displayed whenever you select these objects on the screen. You can change the size of your object by simply holding the left mouse button over one of the rectangular control points, and dragging the box into a new shape. When you release it, your object will be re-drawn in your chosen size.

Note: If your backdrop uses a Mosaic pattern, it can only be re-sized in units of a single wallpaper object. If you attempt to change the size by a fractional amount, the re-size box will snap back to its original position. Alternatively, if your object displays a Colour Gradient, the effect will be recreated using the new dimensions. So it may look quite different.

Resizing a Text object

You can change the size of the text window by selecting the text with the left mouse button, and dragging one of the small control points from the resulting re-size box. The text window will automatically adjust itself to fit the available text. If you try to make it too large, or too small, it will snap back to the nearest character.

If you want to change the size of the actual text, you should select it with the right button, and choose the "Edit Text" option from the menu. You can now choose the text size using a standard font selector . When you're happy, click on "OK " a couple of times to return to the Level Editor, your text will be re-drawn in your new size.

Resizing a Score object

Resizing a score object is easy. You simply call the "Resize..." option from the pop-up menu, and drag the resulting box into shape. You can also enter the new size directly from the keyboard.

Note that Score Objects are not displayed using normal text. They are generated out of a series of images representing the digits 0 to 9. So whenever you resize the score, you'll change the size of each digit in the sequence. In extreme cases, this can require a lot of memory.

Resizing a Lives object

If your Lives objects are displayed as a number, they'll be treated in the same way as Score Objects. But if you've assigned an animation to them, they'll be handled as if they were Active objects. See the previous sections for more details.

Resizing a Counter object

These can be displayed in several ways, depending on how you're displaying the counter on the screen.

Horizontal or Vertical Bars are generated using Quick Backdrop objects, and can be resized by just dragging on their control points with the mouse. See Resizing a Quick Backdrop Object.

Numbers are displayed using a series of ten digits, just like Score or Lives objects. They are resized by selecting the "Resize..." option from their pop-up menus.

Animations are treated just like a normal Active object. Check out the previous section Resizing an Active object for more information.

4.13 Changing the Display Order of an Object

Normally your objects will be shown in the exact order they are drawn. So the first object in your game will be displayed in the background, and the later objects will appear towards the front. In practice, this can cause real problems, since it's impossible to predict precisely how your objects will appear on the screen. Supposing you wanted a missile to move in front of an attacking alien? Or one of your characters to walk behind a wall? How can these effects be achieved?

Well, it's easy. Klik & Play provides you with total control over the display order. So you can move your objects back and forth through the display, changing their depth at will.

You can change the display order using the "View" command from the object's pop-up menu.

This supplies you with the following options:

To Front: Brings your object to the foreground, and moves it in front of all the other objects on the screen.

Forward One:
Moves your object one step forward through the display order.

Backward One:
Moves your object one step back through the display order.

To Back: Places your object behind all the other objects in the game.

When you're creating your games, you'll probably need to experiment a bit to get the effect you want. Use the "Forward One" and "Backward One" options to shift your object through the display order, and test the game to check out the results.

4.14 Editing an Object's Name and Icon

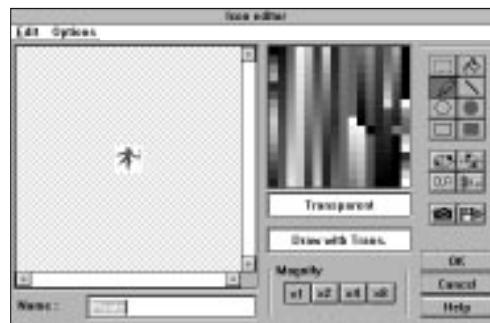
As a default, Klik & Play will automatically allocate a name and an icon to every object you create. These icons provide a standard way of representing your objects in the Level Editor, the Step Through Editor, and the Event Editor.

Each icon is exactly 32 units wide by 32 high. It's usually loaded with a reduced version of your object's image. If your object has an animation assigned to it, the icon will be created using the first frame in the sequence. The name is generated from the type of your object and a number. Typical names include: "Active object 1", "Score 2", and "Quick Backdrop 3".

You can change these attributes using a simple command from the object's pop-up

menu. Click on the object with the right mouse button, and select the "Edit Name and Icon..." option.

You'll now be presented with the following editor



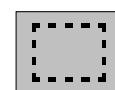
The Icon Editor

As you can see, it's very similar to the standard picture editor. To the left, there's a large window which can be used to draw your images on the screen. You can plot a point by moving the mouse over the image window, and clicking once on the left button. You can choose the drawing colour by either selecting it from the image with the right mouse button, or clicking on one of the shades from the "Palette Window".

When you've created your icon, select "OK" to return to the Level Editor. Your new definitions will be saved automatically along with your game.

Here's a quick summary of the various features:

The drawing options



Select Area

Cuts a block out of your image, and lets you move it to around your image. You choose the area by dragging a re-sizeable box around with the mouse. You can now move this box to a new part of your image. It will be locked into place when you select another option. This command should be used before calling the CUT or COPY options from the EDIT menu.



Fill

Fills a region with a solid block of colour.

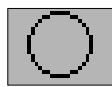


Draw

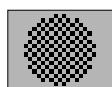
Plots a single point on the image.



Line Draws a straight line in the selected direction. Click on the starting point with the mouse and stretch the line into position.



Ellipse Paints a hollow circle or ellipse. To draw your circle, move the mouse over the centre point, and drag the disc into shape using the left button.



Filled Ellipse Generates a filled circle or ellipse.



Rectangle Creates a coloured rectangle. Click on the top left hand corner of your box and drag the opposite corner with the mouse.



Filled Rectangle Produces a filled rectangle on the screen.



Flip Image Horizontally Flips the image from left to right, rather like a mirror.



Flip Image Vertically Turns the image upside down.



Clear Erases the image from the screen.



Import Imports an image from the a file. Select your file, drag a box around the area to be captured, and click on the left mouse button to grab the image
See Section 4.11 for more information.

In addition to the standard icons, there are three new options.

Name: This holds a twenty-two character description of your object. Select it with the mouse, and type in a new name. It can be anything you like.



Reduced Object Image: Generates the icon directly from the object. If the object is much larger the icon will become a reduced version.



Capture: Grabs the icon from the current screen. Before using this option, it's best to arrange your windows so that the area you want is in view. You can now click on the capture icon to grab the image. The Icon Editor will vanish, and the mouse will turn into a small box. Move this box over the area you require, and load it into memory with the left mouse button. It will be copied into the Icon Editor immediately.

The Zoom buttons

Click on a button to change the magnification of your image.



The Icon Editor menu

The Edit menu provides you with a familiar set of cut and paste features.

Undo (Ctrl+Z)

Reverses the last operation from the editor

Cut (Ctrl+X)

Cuts a previously selected block of the image, and saves it into memory. Before using this option, you should choose the region you wish to grab using the Cut and Paste icon. If you don't, the whole icon will be cut.

Copy (Ctrl+C)

Copies a selected area into memory, without affecting the existing image.

Paste (Ctrl+V)

Pastes a previously saved block back onto the image. This option automatically selects the Select area icon. So you can position your area anywhere on the image.

Del (Delete)

Erases the currently selected region.

The Options menu provides you with the following:

Change Transparent Colour

Picks one of the colours to be used as transparent.

4.15 Creating an Obstacle

Any Backdrop Object or Quick Backdrop Object can be set up as a barrier to an object's progress. These obstacles can be used to create walls, steps, or buildings in your games.

Highlight the Backdrop Object with the mouse and press the right mouse button. Select "Obstacle" from the resulting menu, you'll now be presented with the following menu:

No

Moves the object into the background, and if any object comes into contact with the Backdrop object no detection will be reported, the game will simply continue as normal.

Yes Defines the object as a normal obstacle, such as a wall. So if a ball hits it you could bounce the ball off the wall. If an object with platform movement tries to jump up into a Backdrop (set as an obstacle) it will collide with it. So you can make roofs in your games with this. The next option allows you to make walkways which can be jumped up onto:

Platform Creates a floor or walkway for your platform games.

Ladder Sets up a ladder which can be climbed up by objects with platform movement.

5.0 Events and Actions

So far, we've defined the objects that we will be using and allocated movement to particular objects. But we still need to know some more information before we can create an actual game. The Level Editor is very effective for simple design work, but it takes no account of the action in the game. The next stage is to be able to add particular actions into our games whenever an event may occur.

Typical events might include a spaceship colliding with an attacker, the player pressing fire, or a character walking into a wall. In each case, we need to decide how the game should handle these events.

Possible actions might be to destroy the ship, fire off a missile, or bounce a character against the wall.

Klik & Play lets you define these events in two ways:

The Step Through Editor

This is an interactive "assistant" which tests your games and reports back whenever an event occurs. A message is displayed whenever objects collide, or leave the playing area. You're then given the opportunity to assign actions to your events. This might be something simple, such as playing a sound sample, or it might be a whole series of different effects, to destroy an alien, increase the player's score, and remove a missile. Either way, you'll find it easy to add these events on the screen. This is explained in the next chapter (5.1).

Although the Step Through Editor is extremely friendly, it doesn't provide all the power you need to make complex games. It's only capable of handling a fraction of the available events. If you want to be able to use the full capabilities of Klik & Play, you'll need to use the Event Editor as well.

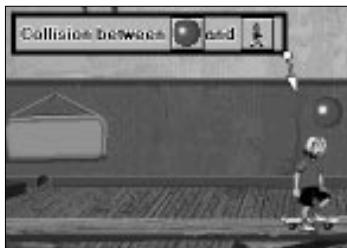
The Event Editor

The Event Editor gives you total control over all the events and actions in your games. It lets you define events directly in your game, and select the actions by hand. You can use it to turn off certain actions during testing, flip an object to a new position, change an animation sequence, and so on. The possibilities are almost limitless. Because of this, it's sensible to familiarise yourself with the general principles first. Otherwise, you could easily get lost in a maze of possible actions. We'd therefore recommended you to read through this chapter carefully before you start. You'll find a complete explanation in Chapter 5.2.

5.1 The Step Through Editor

The Step Through Editor tests your game, and checks it for events. When an event occurs, your game will stop playing and you will be asked to enter an appropriate action.

The event is displayed in a small box on the screen like this:



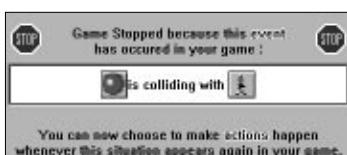
After a few seconds, this disappears and the Game Control Panel springs into view.



The Game Control Panel is divided up into several Sections.

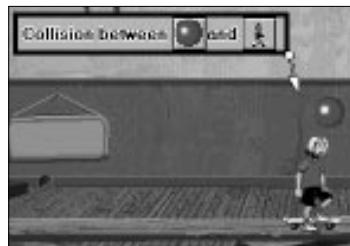
The Event message

Describes the event and asks you to select an action if you wish to do so.



The Action Icons

Chooses a new action for your game. There are five possibilities:



Play a Sound Sample

Plays a sound sample.

Change Player's Score or Lives

Adjusts the player's score or the number of lives.

Game Storyboard Controls

Jumps to a new level or stops the game.

Create New Object

Creates a brand new object into the game.

Change Object "name"

Allows you to change the direction of an object, how it collides with other objects, if it should be destroyed and if it should shoot other objects.

The Selected Actions box:

Displays all the actions which have been defined for this event. These actions can be dragged around with the left mouse button and deleted by dragging them over the dustbin.



Event Controls

These allow you to move through any previously set-up events and add new actions quickly.

**Display First Event**

Jumps to the first event in your game.

**Display Previous Event**

Moves to the most recent event that was set-up.

**Display Next Event**

Jumps to the next event in the list.

**Display Last Event**

Moves to the last event detected in your game.

**Restart Game**

Plays your level from the start.

**Continue Game**

Continues the game from the current position.

**Goto**

Allows you to access the Storyboard Editor, Level Editor and Event Editor. The Goto option also allows you to move to another level.

**Help**

Provides a detailed help screen explaining the various options.

**Dustbin**

Drag an action over this area to erase it completely.

Calling the Step Through Editor

The Step Through Editor can be entered from either the "Game" menu, a pop-up menu from the Storyboard editor, or via one of the "Goto" icons. In each case, it can only be called up if you've already defined some objects for your level. It will not be accessible with empty levels.

Step Through Editor Tutorial

Getting started

We'll now demonstrate the Step Through Editor in action. As our example, we'll expand the demonstration game we created in Chapter 1.1.

If you haven't already read Chapter 1.1 it is very advisable to do so, as it will give you

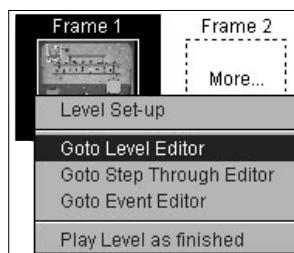
an invaluable grounding in the basic principles of Klik & Play. Follow the instructions given in Chapter 1.0 and create the demonstration game on the screen. When you've finished, save the results, and return to this tutorial.

Setting the scene

Before we can start, we will need to add a couple of extra objects to our game.

First, load up your demonstration game from Chapter 1.1 with the "Load game" option from the "File" menu.

Call up the Level Editor by selecting the "Frame 1" box with the right mouse button, and highlighting "Goto Level Editor" from the resulting menu.



After a few seconds the Level Editor will appear.

We can now select our objects from the screen.

Click on the "Toyland" icon from the Library list. You may need to move through the icons with the scroll bar before it appears.



The "Toyland" Library will be displayed on the Object Shelf.



Highlight the "Heart and Soul" object, and place it at the top of the screen. We'll be using this object as a bonus.



Let's create a "score" object to keep track of the player's progress. Click on the "Tools" button, and choose the following icon:



When it's selected, the mouse will change to an insertion pointer:



You can now position your object by moving the mouse over the right of the player and pressing the left button. The score will be shown as a red "0".



Next, we'll add a "lives" object to show the player's status. Call up the "Tools" button again, and click on the "Lives" icon.



As before, the mouse will change shape to show that you're in insertion mode. It will turn into a small man, representing the lives. Position it at the top right hand corner of the playfield, and click once to drop the lives object into place. The result should look something like this:



Testing a game with the Step Though Editor

You're now ready to test the new objects in your game. Move the mouse over the "Game" menu, and select "Goto Step Through Editor".

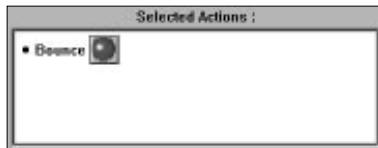
Your game will be run on the screen, with Klik & Play searching for possible events. Whenever an event occurs the game will stop and you'll be asked to choose an appropriate action.

If you've set up the demonstration game correctly, you should have already covered all the possible rebound events. So the ball will bounce around the screen destroying soldiers and spinning tops. You can now move directly to the next section and add in the new actions.

If you haven't, the Step Through Editor will detect a whole series of different events. Here's a list of the possibilities, along with the suggested actions:

Collisions between the ball and either the Playfield Boundaries or the Skateboarder

Click on the "Big Ball" icon from the Step Through Editor screen, and choose the Bounce "Big Ball" option.



Now select the "Continue game" icon to resume.

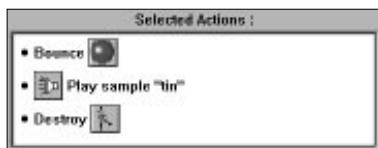


Collisions between the Ball and either a "Spinning Top" or a "Soldier"

Click on "Big Ball" icon and select the Bounce "Big Ball" option as before.

Select the "Loudspeaker" icon, and click on the "Toyland" directory, from the list of samples choose the "Tin.wav" sample.

Click on the object the ball is colliding with and pick the "Destroy..." option.



Press "Continue Game" icon to resume the game.

Collisions between the Skateboarder and the Playfield Boundary

Select the skateboarder and choose Bounce "Skate Dude"

If you're still having problems you'll find a full tutorial in Chapter 1.1.

Once you've set up the basic collisions you'll be ready to add in new objects.

Hit the "Esc" key to get back to the Step Through Editor.

You can test your new actions by selecting the "Restart Game" icon.



Now for the fun part. The skateboarder object has its own pre-set movement system. It's assigned to the player and can be moved around with the Cursor arrows or Joystick.

With the help of the skateboarder, try to bounce the ball so that it hits the heart. When you've succeeded the Step Through Editor will ask you to define an action.

The action we want, is to add a new life to Player 1.

Click on "Change Player 1's Score or Lives" icon:



and select "Add a life". This will give the player an extra life whenever the ball hits the heart.

Next, we'll destroy the heart when the ball hits it. Click on the "Heart" icon and choose "Destroy Heart and Soul".

Select the "Continue game" option as before.

A moment later, the Step Through Editor will reappear. That's because you've just killed off the last heart in the game. You could just leave things as they are, but if you're feeling generous, select the "Player 1" icon, and choose "Add to Score". This will allow you to add a bonus in your game. Either way, click on the "Continue game" icon to keep playing.

Stepping through the events

So far, we've followed Klik & Play's instructions very specifically. So we'll now do a bit of additional editing work for ourselves.

Play the game again, making sure you destroy a few Spinning Tops and Soldiers. Then hit the "Esc" key to return to the Step Through Editor.

Near the bottom of screen, you'll see some icons labelled "Event Controls". These allow you to examine each event in your game, and make changes very quickly.

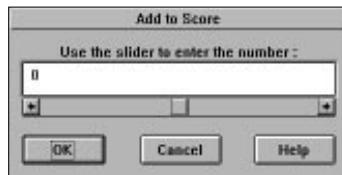


This loads the editor with the first event in the current game. Click on it with the mouse to see the effect.

The arrow icons let you scroll back and forth through the events list:
Have a go at selecting them to display all the events in the current game.

When you find one labelled, "Ball is colliding with Spinning Top", click on the "Player 1" icon, and select "Change Score". Now click on "Add to Score" to increase the player's score whenever he hits the top.

You should get a dialogue box like this:



Move the mouse over the "0" and click on it with the left button. Type in 50, and select "OK".

The Step Through Editor will reappear, along with some new scroll bars. You can use these bars to see all the actions chosen for a particular event.

Check through the controls again, and search for the "Ball collides with "Soldier"" event. You can now add in the score action as before, and start the game with the "Restart Game" icon.

Have a play with the game. Whenever the ball hits a soldier or top, the score will increase by 50 points.

And that's about it. You've just edited your first Klik & Play demonstration game!

All that's remaining, is to return to the Level Editor and save it on the disk.

Hit "Esc" and select the "Goto" icon. Call "Goto Level Editor" and save your demonstration game using the "Save" option from the File menu. Choose a name like "Demo2.gam"

So far we have a nice looking demonstration game, but it is a rather limited game. We have a situation where the player does not lose lives. The next step is to include the events which affect the player's lives.

The Step Through Editor isn't the best tool for this option as it only lets you test for a limited number of conditions. If you want to access the full power of the Klik & Play event system, you'll need to use the Event Editor instead.

In Chapter 5.2 we'll be demonstrating how we can use the Event Editor to add the finishing touches to our game.

The next chapter has a detailed explanation of how the Event Editor works.

5.2 The Event Editor

Overview

The Event Editor provides you with a simple way of managing all the events and actions which can occur in your games. It's the key to creating successful games.

Everything that can happen in your game, is represented by an EVENT. Typical events would be an object moving outside the playing area, a player pressing the fire button on a joystick, or a ball hitting a bat. Each event can include a number of different conditions. These are basically just tests. You can test the position of an object, read the player's score, check the mouse coordinates, the possibilities are endless.

When an event occurs, it's up to you to add the appropriate actions. These actions can be anything you like. Actions are available to destroy objects, move objects around, play samples, increase the score. There are many actions to choose from.

Because there are so many options, it's easy to get lost in the confusion. The Step Through Editor becomes invaluable in this situation, since it concentrates your attention on the events that really matter in your game.

After you've gained a little experience, you'll often want to add your own events by hand, this can be effectively achieved by using the Event Editor.

The Event grid

The Events are displayed in the form of a grid. Along the left, there are a list of events which will be tested in your game.



A screenshot of the Klik & Play Event Editor window. The title bar says "Klik & Play - Event Editor - Game1.gam". The menu bar includes File, Edit, View, Insert, Select, Help. On the left is a sidebar with buttons for OOPS!, HELP, INFO, +, and a list of events: 1, 2, 3, 4, 5, 6, 7, 8, 9. The main area is a grid titled "All the events". The columns are labeled with icons: a person, a circle, a square, a triangle, a rectangle, and a question mark. The rows are numbered 1 through 9. Each row contains an event description and a series of checkboxes. For example, row 1 has "1 • [person] leaves the playfield on the left" and checkboxes for the first four columns. Row 9 has "9 • Let [rectangle] leave the field" and a checkbox for the last column.

1	• [person] leaves the playfield on the left				✓
2	• [circle] leaves the playfield on the right				✓
3	• [square] leaves the playfield on the bottom				✓
4	• Collision between [triangle] and [rectangle]	✓	✓	✓	✓
5	• [circle] leaves the playfield on the right				✓
6	• [square] leaves the playfield on the top				✓
7	• Collision between [triangle] and [rectangle]	✓	✓	✓	✓
8	• [circle] leaves the playfield on the left				✓
9	• Let [rectangle] leave the field				✓

Events are indicated by a number like so, each event can include a number of different conditions. The conditions are displayed in a small rectangle alongside the event number:

1	•  leaves the playfield on the left
2	•  leaves the playfield on the right

To the right of the events, there's a list of grid boxes containing your actions.



What the actions actually alter is represented by a series of icons at the top of the screen.

The first few actions are special. They provide basic control over your game:



Sound Enables you to play sound samples and music's when an event occurs in your game.

Game Storyboard Controls

Move to a different level or end the game.

Create new objects

Allows you to create a new object at your specified coordinates.

Player actions

Changes the player's score or deducts a life. There's one icon for each player in the game.

After these, you'll see a list of all the ACTIVE objects in the current level.



Below the action icons, there are a number of boxes arranged in neat rows. Each row is linked to a particular EVENT in your game. If an action has been selected, the appropriate box will be ticked. You can inspect these actions by moving the mouse over the relevant tick.



If you want to change the actions at a box, use the mouse pointer. The left and right buttons have different functions:

The Left button

Edits your current actions displayed on the screen.

The Right button (Mac: ⌘ click)

Enables you to add new actions to your game.

The Toolbar

This consists of a series of icons which provide basic control over the Event Editor.



Goto Jumps to a different part of the Klik & Play system.



Help Calls the Klik & Play help screen for instant advice.



Info Displays information about the memory used by your game, at the current point in the game. The memory usage can fluctuate depending on how many objects are created during the course of the game.



New Condition Adds a new condition to the event grid, and asks you to select a condition for testing.



Restart game Restarts the current game from the beginning, so you can check out the effects of your changes.



Continue game Continues a game which has been paused.

You can change the layout of these icons using a simple option from the "Edit/Preferences" menu.



Click on the "Horizontal Icons" box to turn off the standard display system. The toolbar will now appear as a horizontal strip at the base of the screen.

Summary

Before we get down to detail, here's a quick summary of the key points to remember.

- Conditions perform a single test in your game.
- Events are collections of conditions which generate one or more actions.
- Actions do things, such as playing a sample or changing the score.

Creating an Event

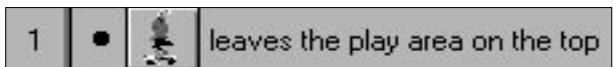
Creating an event is a two stage process:

1. First choose your event and add in the conditions which need to be tested.
2. Now select the actions you wish to perform if the conditions are true. Click on the appropriate grid box with the right mouse button, and enter the actions from the resulting menu.

Editing Options

Editing an Event

Events are selected via the number icon to the left of their condition box.



You can use this icon to move the event up and down the event list. Simply hold down the left mouse button over the event number and drag the event to a new position. All the conditions and actions it uses will be moved as well.

If an event contains several conditions, you'll be able to edit each one individually. You can move your conditions in the event box by dragging them up and down with the left mouse button. Since the conditions are tested from top to bottom, you should test the most important items first. It could lead to a speed difference in your games.

It is best to make your selections using the dot or plus mark, to the left of the condition. This stops you from picking an object icon by mistake, which may replace the current object.

Editing an event is easy. Just click on the event number with the right mouse button and select an option from the following menu.

Add a new condition

Adds a new condition to the existing list. Your conditions will be separated by "+" (Plus) marks.

Delete the last condition

Removes the bottom condition from the list.

Delete event

Erases the entire event.

You can also edit a single condition. In this case, you should select the condition text, rather than the number. Here's what you'll see:

Edit Changes an existing condition.

Replace Replaces your condition with something completely new.

Insert Inserts a new condition at the current point.

Delete Removes the selected condition from the list.

Note that you should be careful NOT to select an object icon by mistake. This will edit the object rather than the condition.

Editing an Action

You can edit an action by simply clicking on a grid box with the mouse.

The left button brings up an action editor like so:

**Actions related to object**

Shows which object will be affected by your action. Special actions will be represented by their appropriate icons. So if for example you're defining a sound action, you'll see a picture of a loudspeaker.

Selected Actions

Lists all the actions which will be performed by the event. You can edit these actions by selecting them with the right mouse button.

This will bring up a list of the possible actions which can be generated. Click on "Delete" to erase the existing action.

New Action

Select this item with the right mouse button to create a new action for your game.

You can also drag these actions using the left mouse button, and delete them by dropping them over the Dustbin.

Changing an object

You can replace the objects in any condition test by just clicking on them with the mouse. A dialogue box will now be displayed to allow you to choose a new object for your condition.

Adding an Event

You can add an event in two ways:



1. Select the "New Condition" item in the last event of the list.



2. Click on the "Add condition" icon from the toolbar.

In each case, a dialogue box will appear:



Each icon within this dialogue represents a group of conditions which can be tested in your game. You can select these icons with the right mouse button. A menu will now appear containing the available options.

When you've made your selection, your new condition will be added at the bottom of the event box.

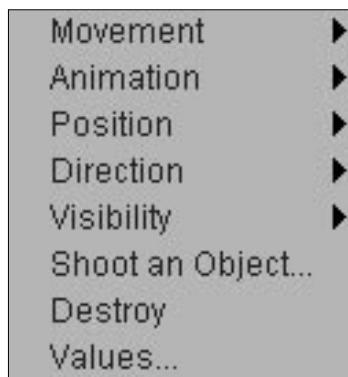
Adding a condition

You can add an individual condition by clicking on an existing condition with the right

button. Pick the "Insert" option from the resulting menu. You can also select "Add new condition" from the pop-up menu which appears when you right click on the event's number icon.

Adding an Action

You can add an action by clicking on one of the grid boxes with the right mouse button. You'll now get a menu of the actions which can be performed by the event. Here's a typical example:



Alternatively, you can select the action with the left button, and call up the Action Editor. You can then click on the "New Action" text with the right mouse button to define a new action.

Note that you'll see a list of all the current actions whenever you move the mouse over a checkmark.

Deleting an Event

You can delete an event by clicking on its number with the right mouse button and selecting "Delete Event" from the menu. All the conditions and actions connected with this event will be erased.

You can also drag the event with the left mouse button, and drop it over the dustbin icon.

Deleting a Condition

Deleting a condition is easy. Just move the mouse over the condition text and click on the right button to display its pop-up menu. Now select "Delete" to erase your condition from the Event Editor. As with events, it's also possible to drag the condition over the dustbin icon.

Deleting an Action

You can delete an action by just clicking on the checkmark with the right mouse

button, and selecting "Delete". If there are several actions, this will erase the most recent one with the "Delete the last action" option.

You can also call up the Action Editor to delete a specific action. Click on the checkmark with the left mouse button and choose an action from the list with the right mouse button. Then call "delete" from the resulting menu. You can also drag a condition down into the dustbin.

If you want to delete all the actions assigned to an event, you can grab the checkmark with the left mouse button, and drag it over the dustbin icon.

Moving an event

You can move an event by holding the left button over its number and dragging it to a new position on the grid.

Copying a condition

Conditions can be copied around the grid by selecting them with the left button, and dragging them to a new event. Any existing conditions at this point will be completely replaced. If you drag a condition on to the event number of another event, the destination event will create a new copy of the condition.

Copying an action

You can copy an action by holding down the left mouse button over a checkmark and dragging the box to a new position. The source and destination actions must be of a similar type. So you can copy a sound action to another sound action, and copy an object action to a different object. But you can't copy a sound action to an object action.

Moving the actions

The grid is divided into a series of columns. Each column represents a particular object type, with its related actions listed down the column. You can move these columns around by holding down the left button over the appropriate icon and dragging them left or right to a new position.

Scrolling through the event list

Klik & Play allows you to add hundreds of events to any one of your games. You can page these events through the Editor using the scroll bars to the right and bottom of the screen.

Filter effects

Displaying all the events connected to a particular object

This feature allows you to remove the clutter from the Event Editor, and concentrate on particular sorts of actions.

Simply click on one of the icons at the top of the screen and the editor will

show all the events and actions associated with that object. You can return the screen back to normal by clicking on the icon again.

It's also possible to filter more than one item. If you click on an icon with the Shift or Control keys held down, each filter object will stay selected. So you could filter for actions and events associated with the score of Player 1 and aliens he shoots at, for example.

You can also list all the timer events using the filter option. Just click on the "All Events" area with the right button, and you'll get the following menu:

Filter Timer Events

Displays all the events which use the timer.

No Filters

Show all the events and actions in the level.

Event Editor Tutorial

We'll now test the event editor and check out some of its features.

Getting started

We'll use it to add the finishing touches to the demonstration game we created in sections Section 1.1. If you haven't already read section 1.1 and produced the demonstration game, now's the time.

The demonstration game includes a bouncing ball, a player character, and a lot of action. But there's nothing for the player to do. He can sit around watching things happen without the loss of a life for example.

However, we can change this situation by using the Event Editor:

Load your demonstration game into Klik & Play with the "Load game" option from the "File" menu. Now click on the "Frame 1" box with the right mouse button and select "Goto Event Editor"

You should see the following screen:



Along the top, there's a set of icons for each object in your game. These can be selected with the left mouse button to list all the events and actions associated with a specific game object.

Adding some new events to the demonstration game

With the left mouse button click on the "Ball" icon to examine the events connected with the "Big Ball".

For our first experiment we'll delete one of the events from the screen. Move the mouse over the numbered icon of the "Big Ball leaves Play area on the bottom" event.

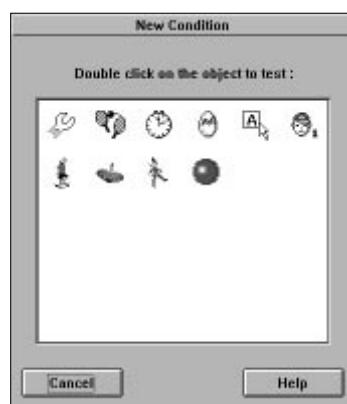


The actual number may be different, as this depends on the order you created the events.

Hold down the left mouse button and drag the resulting box over to the "Dustbin" icon. When you release it the event will disappear from the list.

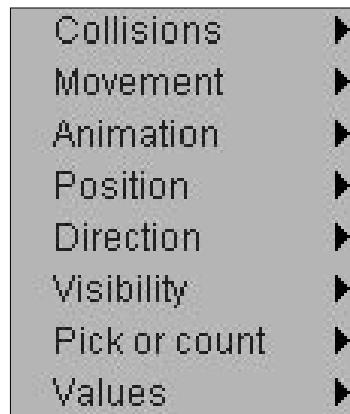
We'll now replace this event with a new one which provides much finer control over the ball movements.

Place the mouse over the "New Condition" box at the bottom of the grid, and click once on the left button. You'll be presented with the following dialogue box:



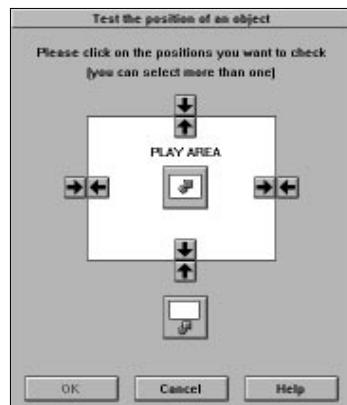
This contains a list of all the objects which can be tested in your game. You can select these objects by simply double clicking on them with the mouse.

Choose the "Big Ball" object, and click twice on the mouse. A menu will appear with the available conditions.



The option we want is "Position". Move the mouse over this option and select "Test Position of Big Ball" from the sub menu.

A dialogue box will be displayed:



Note the arrow icons. These test whether an object enters or leaves the play area. When you move the mouse over them, a message pops up with the effect.

Select the arrow marked "Leaves in the bottom", you should get something like this:



Click on "OK" to continue.

Now we'll need to select some actions for our event.

Our first action will be to replace the ball at the centre of the screen.

Move the mouse over the current event row, and underneath the "Big Ball" icon.

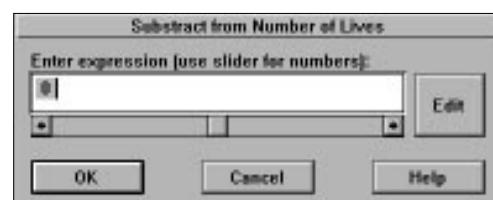
Now click on the right mouse button to bring up the action menu.

Select the "Position" option from the menu and choose "Select Position..." .

This will move the ball to a new point on the play area. You can change the position to anything you like. Just select the X or Y boxes and type in a new coordinate. But the default values are fine. They'll replace the ball at the centre of the screen. Just click "OK" to select this action.

Our next action will deduct a life whenever the player misses a ball. Select the grid box under the "Player 1" icon with the right mouse button and pick the "Number of Lives" option. You should then choose "Subtract from number of lives".

A dialogue box will be displayed:



Change the zero to a one. Select "OK" to continue.

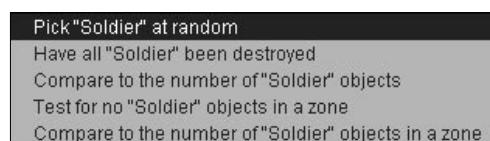
The ball has now been set up for our demonstration game. Call the Step Through Editor from the "Game" menu, and play the game. Try to catch the ball with the skateboarder. If you succeed, the ball will rebound against walls as before. If you fail, you'll lose a life and the ball will be replaced at the centre of the screen.

After you've lost three lives, the Step Through Editor will be displayed, and you'll be given the option to kill the character off. Select the "Game Storyboard Controls" icon, and choose the "End Game" option. Click on the "Goto" icon to return to the Event Editor.

We'll now round things off by adding a couple of extra conditions. These will end the game whenever the player runs out of bricks.

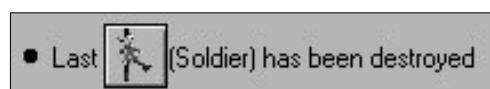
First, click on the "Ball" icon to display all the conditions related to the ball.

Select the "New Condition" box and double click on the soldiers icon. When the menu appears, choose the "Pick or count" option. You'll now get the following menu.



Highlight 'Have all "Soldier" been destroyed'

Here's what the condition will look like:



Now click on the number to the left of the condition with the right mouse button, and select "add a new condition".

Choose the "Spinning Top", select "Pick and count" menu item, and click on 'Have all "Spinning Top" been destroyed'.

Now add an action to this event. Under the Game Storyboard Controls select "Next Frame".

And that's it! The game is complete. Go back to the Level Editor and call the "Play Level as finished" option from the "Game" menu to play it on the screen. As you can see, it's still a bit rough and ready. But at least it's a playable game.

Let's save it onto the disk. Select the "File menu" and highlight "Save As". Type in your new name, and press Return. Your new game will now be available from your hard disk.

Have a go at extending it for yourself. Try adding new objects and supplying the events with the Event Editor. Extend the number of levels using the Storyboard Editor – have fun!

Testing tips

When you're experimenting, you may find it useful to temporarily turn events on or off. You can do this with the Always and Never conditions.

Always Ignores the current conditions completely and performs the actions regardless. It's great for testing things like sound effects.

Never Switches the event off and never performs the actions even if all the conditions are true. It would allow you to give your player infinite lives during testing.

Before we leave this section, we'll show you how you can add this feature to your current game.

Load your game into the Event Editor.

Select the "Number of Lives of Player 1 reaches 0" condition with the right mouse button and choose the "Insert" option. Now click on the Special icon. It's represented by a spanner.

Choose the "Always/Never" option and highlight "Never" from the menu.

Run the Step Through Editor and play your game. As you can see, the skateboarder is now totally invulnerable. When you're finished press "Esc" and "GOTO" the Event Editor again.

You can now return your game back to normal. Place the mouse over the "Never" and hold down with the left mouse button. Drag the entire condition over the "Dustbin" icon and release the button. The condition will now be erased.

Well, that's about it for this section. Here's a quick summary of the steps required to create a game:

Creating a game Checklist

1. Design your game screen and position the objects from the Level Editor.
2. Define the movement options for any active objects in your game. See Section 4.4 for details.
3. Test the game with the Step Through Editor and add in any obvious actions.
4. Test the game again and make a note of any events which are missing.
5. Call up the Event Editor and insert your new events, defining the actions as you go along.
6. Repeat steps 3 to 5 until you're happy with your game.

In the next section, we'll be discussing all the events and actions you can use in your game.

5.3 Conditions

Conditions allow your games to react to events. Do you want to know whether a missile hits one of your aliens? Or when a baddie has moved off the screen? There's a condition for all situations. Once Klik & Play has tested for a condition, it can then perform an appropriate action in your game.

Klik & Play provides a vast number of conditions, and it's easy to get bogged down by the possibilities. But there's no need to panic. Some conditions are added automatically, so you don't have to worry about them at all. An object with ball movement assigned to it will always know how to bounce against walls for example. Additional help is available from the Step Through Editor. This stops your game whenever an event occurs, and lets you immediately select a suitable action. You can use it to create your games interactively on the screen. It almost creates games for you!

What is a condition?

Klik & Play's main task during a game is to keep checking a list of events, over and over again. When any of these events becomes "True", the actions associated to it will be made to happen. Here's a typical event:

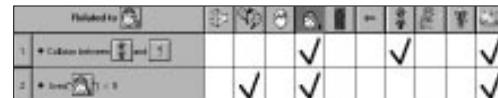


So while your game is being played, Klik & Play continually checks this event, if it becomes "True" (that's to say the Alien is hit by the laser), then the actions will happen. In this situation we would destroy the Alien and laser, and play an explosion sound.

An event consists of one or more conditions. If an event has multiple conditions, then all the conditions have to be "True" before the actions can happen. Here's an event that checks for a character picking up an extra life bonus and ensuring that the total number of extra lives doesn't run over 5:

Event
[Romeo] Collides with [Extra Life]
Number of lives of [Player1] < 5

Actions
Destroy Extra Life
Add 1 to number of Lives

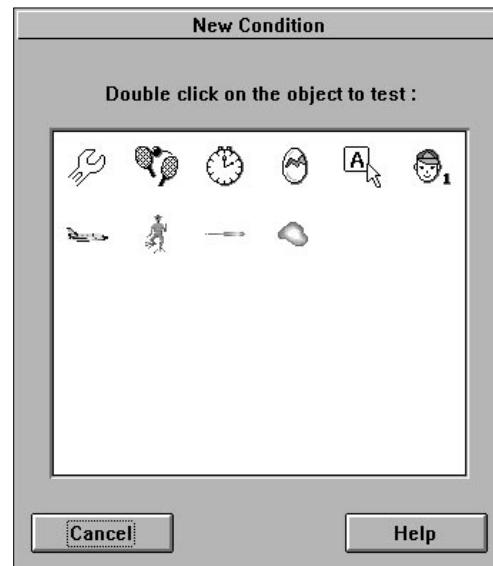


Creating a new condition

After you've decided which backdrops and active objects are to make up your game, call up the Event Editor via the Goto button. Now you can add conditions in one of the following ways:

1. Click on the "New condition" icon: [+].
2. Click on the "New condition" text which appears in the empty event at the base of the event list. Or click on the event number of the last event:
3. To add a new condition to an existing event, right mouse click on the event number icon. Up will pop a menu, from this you should select "Add a new condition".

When any of the above have been selected, a dialogue box will appear, this displays a list of icons which represent groups of conditions:



Here's a summary of the groups:

Special: Enables you to compare values or define limits during a game.

Game Storyboard Controls:
Tests for the start and end of the game.

Timer: Allows for various tests based on the current time of the game.

New Objects:

Pick out selected objects or compare how many objects there are in a game.

Mouse and Keyboard:

Checks for key pressing and mouse clicking.

Player 1,2,3,4:

Test for joystick movements, the current score of the players and how many lives a player has left. There will only be icons for players if objects have been set-up to be moved by them.

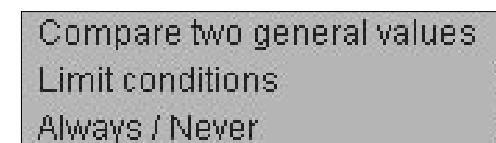
Object conditions:

Active objects, Question objects and counter objects all have their own set of conditions. You can test from the position of an active object to the answer of a question object.

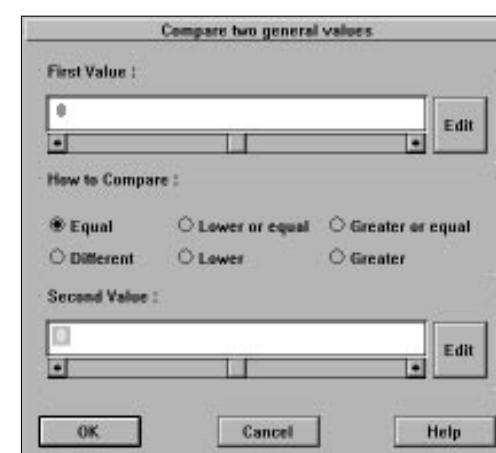
Here's a detailed breakdown of these condition groups. As you read through, note the suggestions that we've added, these will help you to see how the conditions can be used within your own games.

Special Conditions

Select this icon with the right mouse button and up will pop this menu:

**Compare two general values**

This generates the following screen:



You can enter the comparison values directly into the boxes, or scroll them up or down with the arrow keys. The radio buttons control the type of your comparison.

So far, we've only dealt with simple numbers, but you can easily perform more complex tests with the "EDIT" buttons. These bring up a fancy calculator accessory on the screen. They can be used to enter advanced expressions into Klik & Play.



The calculator forms the gateway to an impressive range of conditions. The "Retrieve data from an Object" option is especially valuable. It lets you test things like the speed, direction and location of any one of your objects. When it's selected, you'll be asked to choose your object from a dialogue box. You'll then be given a menu of the available items to test. Here's the total list of possible options:

Options for Active Objects

The conditions can be chosen from the following list:

Movement

Checks the movement of an object

Speed

Check how fast this object is moving (from 0 to 100).

Acceleration

Test how much the speed increasing (from 0 to 100).

Deceleration

Test to see if the object is slowing down (from 1 to 100).

Position

Reports the coordinates of an object.

X Coordinate

The X coordinate represents the horizontal position of your object. It's measured from the far left of the play area.

Y Coordinate

Measures the vertical position of an object. The Y-Coordinate is set to zero at the top of the screen, and increases as the object moves downwards.

You could use these conditions to check if an object has reached an important part of the screen.

Animation

Tests the appearance of an object.

Current direction value

Which way is an object facing? Zero equal's facing right and it can be increased by 1 anti-clockwise, upto a maximum of 32.

Current Frame

Which picture is being displayed?
The frames are numbered starting from one.

Count Number of objects on the play area?

Allows you to check how many types of objects of a type are within the play area.

Values Retrieve alterable value A

Allows you to test the value of an object's internal value A.

Retrieve alterable value B

Test an object's internal value B.

Retrieve alterable value C

Test an object's internal value C.

Retrieve fixed value.

Test an object's own unique fixed value.

Options for Text Objects**Current number of paragraph**

Returns the number of the paragraph displayed by a text object. The first piece of text is paragraph one, the second is paragraph two, and so on.

Options for Special Conditions**Generate random number**

Generates a random number from 0 to the selected value.

Options for the Timer**Timer Count in 1/1000 since start of level**

Returns the amount of time which has elapsed since the start of the level, in 1000's of a second.

Timer count, hours

Returns the number of hours the player has been stuck on the current level.

Timer count, seconds

Returns the number of seconds since the start of the level.

Timer count, 1/100 value

Tells you how many 100's of the current second have elapsed.

Timer count, minutes

Returns the elapsed timer in minutes.

Options for new objects

Total number of objects

Checks the total number of active objects in the level.

Options for players

Current number of lives

Returns the number of remaining lives for the selected player.

Current value of score

Returns a player's score.

Limit Conditions

These dictate the number of times an event will be tested in your game.

Run this event once

Performs the current only once during the current level.

Only one action when event loops

If your conditions are true, Klik & Play will perform the selected action just once, no matter how long the conditions remain in force. The actions will only be called again when the conditions jump from true to false and back to true again. This is useful for things like explosion sounds, which only need to occur once when your objects collide.

Repeat

If the conditions are true, the selected action will be repeated once every loop. This is great for creating a wave of aliens at the start of a level.

Restrict Actions

Imagine a sprite colliding with an alien, you make a sound effect, but the sound keeps playing because the alien is still colliding with you. If you add this condition you can stop the actions from continually setting off.

Always/Never

Always

This option is used during the testing of games. It doesn't matter if the event is false, with one of these conditions in the event all the actions will be performed.

Never

Never performs an action, even if all the other conditions are true. As with Always, it's only useful when you are testing your games.

Game Storyboard controls

End Of Level

Tests for the end of the current level

Start Of Level

Checks for the start of a level

The Timer

The timer is an internal clock which ticks once every 100th of a second. It's set to zero at the start of your game, and provides an easy way of measuring time intervals.

Every Performs an action when a selected time period has elapsed. Great for setting off aliens, shooting or creating new baddies during the course of your game.

Is Timer equal to a certain value.

Checks whether the timer has hit a predefined point.

Is Timer less than a certain value

Tests for the timer being under a specific time in the game.

Is Timer greater than a certain value

Has the selected time period been exceeded?

Create New objects

These conditions allow you to check what's happening with regards to the number of objects on screen. You can also single out objects for specific tasks.

Pick an object at random

Chooses any object in your game at random, and lets you assign an action to it.

Pick a random object in a zone

Picks one of several objects in a "zone". You can place the zone anywhere you like, using a resizeable box.

Pick all objects in a zone

Selects all objects in a user defined zone, and assigns an action to them.

Pick objects with reference to their value

Selects an object depending on its value.

You can select from the menu:

- Alterable A*
- Alterable B*
- Alterable C*
- Fixed*

Compare to total number of objects

Checks how many active objects there are in the game.

Compare to number of objects in a zone

Counts the number of objects in a selected zone, and compares the result to a chosen value.

Test for no objects in a zone

Have any objects entered a particular area of the screen?

The mouse and keyboard

These options let you check whether the player has hit a key or clicked with the mouse pointer.

Upon pressing a key

Checks for a single keypress. You'll be asked to enter a key to be tested.

Repeat while key is pressed

Repeats an action whilst the selected key is pressed down.

Check for mouse pointer in a zone

Allows you to define a zone and check for the mouse moving into it.

Check for mouse pointer over an object

Tests the mouse pointer being over an active object.

User clicks

Has the mouse button been clicked? You can check the left, middle and right buttons and you can also detect single and double clicks.

User clicks within a zone

Check to see if the mouse has been clicked (single or double) within a zone.

User clicks on an object

Has the mouse single or double clicked on an active object?

The Players (Player 1, Player 2..)

There's a separate list of these options for each available player.

Joystick Checks whether the player has moved the joystick in a specific direction, or pressed one of the fire buttons. The mouse buttons are treated as if they were the equivalent fire buttons.

Compare to player's score

Tests the player's score.

Compare to player's number of lives

Checks whether the player is running out of lives.

When number of lives reaches zero

Is the players game over?

Object Conditions

Each object in your game can be tested independently of all the others. In our examples, we've used "object name" to represent the name of your objects.

Collisions

Tests for collisions between objects. Each collision will only be triggered once by any single event. So your game will have plenty of time to generate the various explosion effects.

Active object

Has your object hit the chosen target object? You'll be asked to choose the target object when you create the condition.

Overlapping another active object

Checks to see if two objects are overlapping. Unlike collisions, overlapping events are tested continuously. So they'll remain true until the objects move apart.

Backdrop

Has it hit a background obstacle?

Movement

Checks the object's movement

Is "object name" stopped

Has the object stopped moving.

Is "object name" bouncing

Is the object bouncing off an obstacle?

Compare speed of "object name" to a value

Check the speed.

Compare acceleration of "object name" to a fixed value

Tests how fast the object's speed is increasing.

Compare deceleration of "object name" to a fixed value

Tests how rapidly the object is slowing down.

Has "object name" reached a node in the path

This is used to test an object which moves under path movement. When the object gets to a point on the path where a new line starts (the node), this condition will be true.

Has "object name" reached the end of its path

When an active object moving via path movement reaches the end of its trail this condition becomes true.

Copying conditions

You will find that many conditions are used over and over in a game. To make a game quicker to set-up you can copy conditions you have already defined by dragging them from one event to another. Here's how you can drag items around:
This condition:

[Bullet] Collides with [Alien]

can be dragged by clicking on the text "Collides with" and dragging it to another events number icon. You can also drop the condition onto any other existing condition, but you'll overwrite the one that was there.

Animation

Checks the object's appearance

Which animation of “object name” is playing?

Checks the type of the animation. When you enter these tests, you'll be presented with a dialogue box listing all the currently defined animation types. Pick the type you want to test for.

Has an animation finished

Has the animation reached the last frame? Use this to test for the end of explosion objects. When they have done their animation you can destroy them from the screen.

Compare current frame of “object name” to a value

Has the animation reached a selected frame?

Position

Checks the position of your object

Test Position of “object name”

Presents you with a fancy dialogue box which lets you test the location of your objects relative to the play area. You can use it to check whether an object enters or leaves the screen, or if the object is within or well outside the play area.

Compare X position to a value

Check its X co-ordinate

Compare Y position to a value

Test its Y co-ordinate

Direction

Checks the direction on an object

Compare direction of “object name”

Is the object moving in a specific direction? Choose the direction(s) from the "clockface". The directions start from 0 and are numbered ANTI-CLOCKWISE up to 31.

Visibility

Tests the visibility of the object

Is “object name” visible

Is “object name” invisible

Pick or Count

Selects an object

Pick “object name” at random

Picks one of the current objects at random, if the object it picks has actions assigned to it, then they will be carried out.

Have all “object name” been destroyed?

Check to see if there's no more of a type of object.

Compare to the number of “object name” objects

Checks how many of the current objects still exist.

Test for no “object name” in a zone

Is a zone free of one type of object?

Compare to the number of “object name” in a zone

Counts how many of the current objects are in a specific area of the play area.

Values

Tests the objects internal values.

Compare to alterable value A**Compare to alterable value B****Compare to alterable value C****Compare to fixed value**

Question and Answer Objects

Question and Answer objects have their own separate conditions.

Is Answer Correct?

Tests if the player has answered the question correctly.

Is Answer False?

Checks if the user has selected a wrong answer.

Is Answer Equal to a certain value?

Allows you to check for a particular answer. This allows you to have a selection screen, like "How many players?"

Counter Objects

Compare Counter to a value

Tests whether the counter has reached a specific value.

5.4 Actions

Once Klik & Play has detected an event, it can perform appropriate actions. It's these actions which bring your games to life.

There are five types of actions you can use.

1. Play sounds

Play a sample of sound or a piece of music. You'll need a sound card to hear the results.

2. Game Storyboard controls

Do things like jump to the next level, or exit from the game.

3. Change the player's score or lives

Affect the player's score, or the number of lives.

4. Create a new Object

Create a new object at the selected point in your game. Perfect for bullets or explosions.

5. Change object "Active object name"

Change things like the speed, appearance, or visibility of an active object.

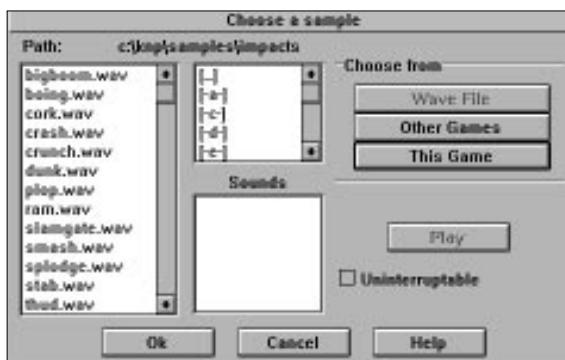
We'll now have a look at each action in turn:

Sound Actions

By adding sampled sound effects or music you can help improve the overall standard of your games. You can create impressive explosions, haunting theme tunes, or interactive sound effects – the possibilities are endless.

Play Sample

Plays a single sound sample through your sound card (if connected). When you add one of these actions, you'll be asked to choose the sample using a selector:



**1. Path**

Shows the current directory

2. List of samples

Lists all the ".WAV" (and ".SND" for Mac) files in the directory. Click on a sample to select it.

3. Directory window

Chooses a drive or sub directory which will be searched for samples .

**4. Sounds**

Lists all the sounds held in the current game or disk based game. If you double click on a ".WAV" file it will be played so that you can preview it before deciding to load it.

**Wave file**

Loads a ".WAV" file from the disk

**Other games**

Grabs samples from other games.

**This game**

Show the samples used so far in the current game.

**Play**

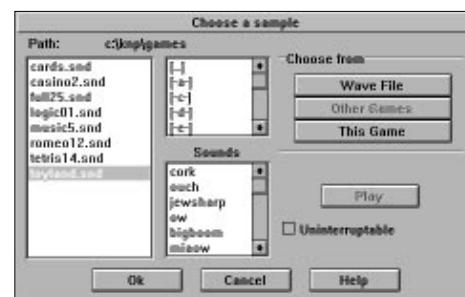
Plays the highlighted sample. You'll only hear the effect if you've got a sound card connected.

Uninterruptible

Toggles uninterruptible playback mode. If a sample is made uninterruptible, it will play all the way through until the sample is finished. So other sounds will not be heard until this one stops.

Play Music

Plays a section of music. As with samples, you'll need to choose a music file from the disk before proceeding.

**1. Path**

Shows the current search directory

**2. List of Music**

Displays all the ".MUS" files in the chosen directory. You can select a piece of music by clicking on the filename.



3. Directory window

Chooses the drive or sub-directory which will be displayed in the file list.

4. Music

Lists all the tunes contained in the presently highlighted ".MUS" file.

5. MIDI file

Reads a ".MID" file from the disk.



6. Other games

Grabs a tune from another game.



7. This game

Picks the music from the current game.



8. Play

Plays the highlighted music. You'll only hear the effect if you've got a sound card connected and your Midi drivers have been set-up properly from the Windows Control Panel. See your sound card manual for further instructions.

9. Uninterruptible

Toggles uninterrupted playback mode. If a section of music is made uninterrupted, it will play all the way through until the selection is finished. So other selections will not be heard until this one stops.

Play and loop sample

Repeats the selected sample continuously. Great for adding a background atmosphere.

Play and loop music

Plays your music for the duration of your game, or until it's stopped by another music action.

Stop any sample playing

Silences any sampled sound effects. Useful for killing off any looped samples.

Stop any music playing

Turns off the music.

Game Storyboard Controls

These actions affect the entire game, and let you move the player through the various levels.

Next Frame

Jumps to the next frame in your game. The order of frames is set-up in the Storyboard Editor.

Previous frame

Moves to the previous frame.

Jump to frame

Ignores the Storyboard and skips directly to your chosen frame.

Restart the current level

Replays the current level from the beginning.

Restart the game

Restarts the game from the first frame.

End the game

Quits the game.

Create a new Object

As the name suggests, this action creates a new object in your game.

When you define one of these actions, you'll be presented with the following dialogue box.

**Choose from****<This frame>**

Chooses an object from any level of the present game.

Other Games

Grabs objects from a completely different Klik & Play game.

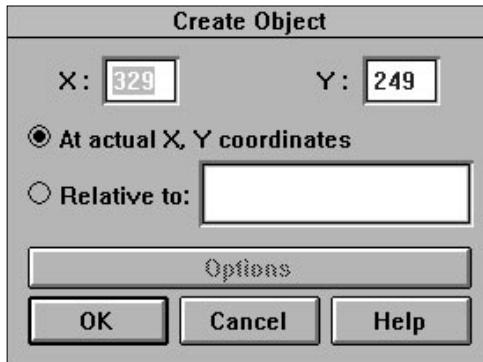
A Library

Provides a box full of library icons. These icons can be selected with the mouse to display their contents on the screen.

The selection window

Contains all the objects available from the current game or library. You can now choose your object by clicking on it with the left mouse button.

Once you've picked an object, you'll need to position it on the screen. A dialogue box will appear for just this purpose.

**At actual X,Y coordinates**

Displays your new object at a fixed position on the screen.

Relative to

Takes the coordinates from an another object

Options If you're displaying your object using the relative option, you'll need to define its starting point like so:

Originating from hot spot

Positions the new object at the relative object's hotspot.

Action point

Places the new object at the relative object's action point.

Located**User defined point**

The new object will be created relative to where the user placed the cross hairs.

In direction of

Locates the new object in relation to the direction of the relative object. So if a cloud of smoke is being created behind a car, it will always appear behind the car, no matter which direction the car is pointing.

Orientation **Normal**

The object will be created pointing in the direction it is normally displayed in.

In direction of

The created object will take the same direction as the relative object.

Player Actions**Change Score**

Changes the player's score

Set score

Sets the score to a new value.

Add to score

Increases the score by a chosen amount.

Subtract from score

Reduces the score.

Change Lives

Changes the number of player's lives.

Set number of lives

Sets the number of lives to a new value.

Add to number of lives

Increases the number of lives.

Subtract from number of lives

Reduces the number of lives.

Affect input**Ignore control**

Stops the object being controlled by the player. Any mouse, joystick, or keyboard commands will be ignored. You could use this in a game to 'freeze' a player momentarily.

Restore control

Gives the player control again.

Object Actions

These actions affect the active objects.

Movement

Changes a previously defined movement setting.

However the movement options available depends upon the type of movement selected:

Movement: **Options available:**

Mouse Stop, start.

Bouncing ball Stop, start, set speed..., bounce.

Path movement Stop, start, set speed..., wrap around play area, reverse.

Platform Stop, start, set speed..., set maximum speed..., wrap around play area, bounce.

Race car Stop, start, set speed..., set maximum speed..., wrap around play area, bounce.

8 directions Stop, start, set speed..., set maximum speed..., wrap around play area, bounce.

Static No options available.

Stop Stops an object in its tracks

Start Starts an object moving again. The speed and direction will be the same as when the object stopped.

Set speed... Sets the speed of your object. Move the slider to the right to increase the speed. Drag it to the left to slow things down.

Set maximum speed... Forces a maximum speed which your object cannot exceed.

Wrap around play area

When your object moves outside the play area, this option will automatically reposition it at the opposite side. Super for making scrolling star effects!

Bounce Bounces an object backwards when it hits a wall. If it's a ball object it may bounce in any manner of directions, it depends how its movement was defined.

Animation

These actions change the appearance of your objects.

Stop Stops an animation sequence completely.

Start Starts an object animating again.

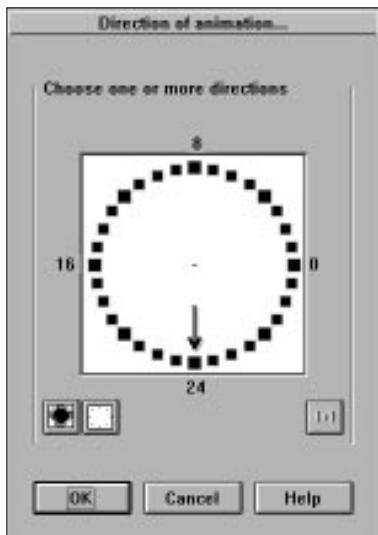
Change...

Animation sequence...

Flips to a new animation sequence from the available list. When you're creating these actions, you'll be presented with a list of the currently defined animation for the object you want to change. You can make your selection by simply clicking on a type with the left mouse button.

Direction of animation...

Chooses a new direction for your animation. You'll be asked to enter the direction using a dialogue box:



Note: Click on as many directions as you like. If there's more than one, the direction will be chosen at random from your list.

Speed of animation...

Sets the animation speed. Larger values are fastest

Restore Animation sequence

Reverts back to the animation sequence before it was changed.

Direction of animation

Restores the last animation direction

Speed of animation

Uses the previous animation speed.

Position Sets the position of your object on the play area.**Select position...**

Moves the object to a new location. You can choose where to move the object using a dialogue the same as Create Object above.

Swap position with another object

Swaps two or more objects around on the screen. All objects with this action will be swapped. This is ideal for shuffling cards in a game!

Set X coordinate...

Sets the horizontal position of your object.

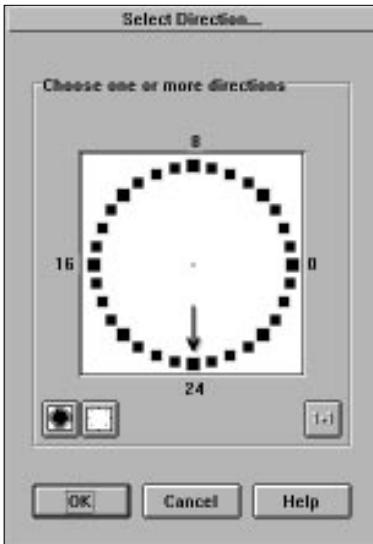
Set Y coordinate...

Sets the vertical position of the object.

Direction Turns your object around.

Select direction...

Changes the direction of your object. You can choose the new direction using a simple dialogue box.



Feel free to select as many directions as you like. If there are several alternatives, Klik & Play will pick a direction from your list at random.

Look in direction of...

Turns your object so that it's pointing towards the selected target.

Visibility Flicks your object into view.

Make object invisible

Makes an object vanish from the play area. It will still be at the same location but will not collide with other objects. Use this to create invisible monsters!

Make object reappear

Redraws a hidden object at its original position

Flash object

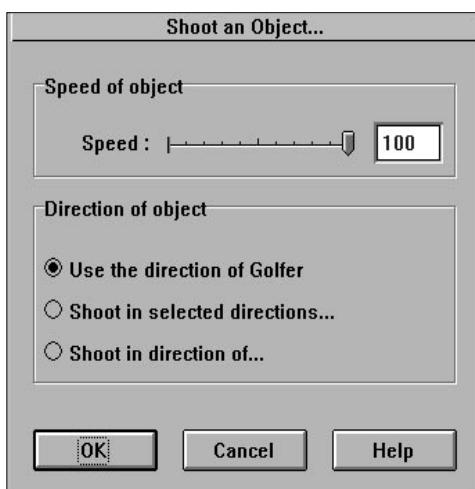
Removes an object from the screen for a defined period, and then flashes it back again. It will keep flashing until you make it reappear again.

Shoot an object

Shoots a new object from an object, just like a bullet. When you call this option, you'll be asked to choose your bullet from a selector box.



You'll now be required to enter the speed and direction of your new bullet.



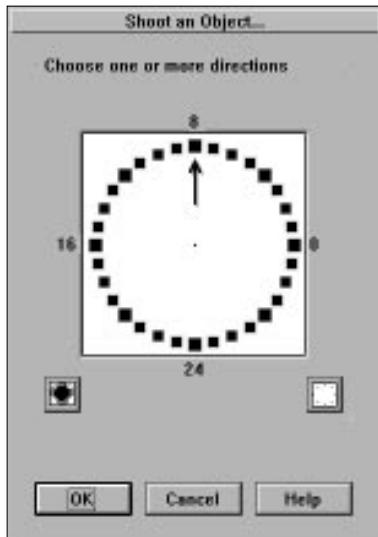
Speed Sets the speed. Move the slider to the right to speed things up. Drag it to the left to slow things down.

Direction of object
Selects the direction of a bullet.

Use direction of “object name”
Lines the bullet up with the object the projectile is being shot from and fires it in the direction in which this object is moving.

Shoot in selected directions...

You can choose the available directions from a dialogue box:



Klik & Play will now pick one of these directions at random.

Shoot in direction of...

Points the bullet at the selected object. Great for guided missiles!

Destroy Kills an object, and removes it from the screen. If the object has a disappear animation, it will be played first before it's fully erased from the display.

Values... Changes one of the object's internal values

You'll now be asked to choose an alterable value, and select the operation.



A Picks alterable value A.

B Affects alterable value B

C Selects alterable value C.

Set value Loads your value with a new number.

Add to value

Increases an alterable value by the chosen amount.

Subtract from value

Reduces an alterable value.

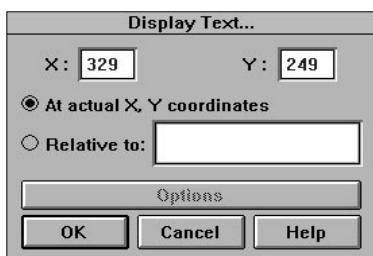
Spread a number

Generates a random number. You can enter the range from a dialogue box. The number will now vary from 0 to the chosen range.

Text Object Actions

Display Text

Displays a piece of text at the selected point on the screen. When you create one of these actions, you'll be presented with a dialogue box like so:



At actual X,Y, coordinates

Prints your message at a fixed position on the screen.

Relative to object

Draws your text near the selected object.

Options If you're displaying your message alongside an object, this button lets you define its relative position.

Originating from

Hot spot

Starts the text from the object's hotspot

Action point

Places the message at the object's action point.

Located User defined point

The text will be created where the user places the cross hair.

In direction of

Places the new text object in relation to the direction of the relative object.

Erase Text

Removes a message from the screen.

Set colour of text...

Changes the text colour

Set Paragraph...

Displays one of several messages you've defined for the object.

Next Paragraph...

Prints the next piece of text from the object's message list.

Previous Paragraph...

Shows the previous message from the list.

Question and Answer Object Actions

Ask the question

Turns on the question object, and waits for the player to select one of the answers. You can test for the result using an event. See Section 5.2.

Counter object actions

Set counter

Sets the counter to a new value.

Add to counter

Increases the counter by the selected amount.

Subtract from counter

Reduces the counter.

5.5: Creating objects within a game

Klik & Play allows you to create new objects at any point in your game. Supposing you've generated an asteroid which breaks apart into several fragments when it's hit, or the player fires off a bullet at an attacking spaceship. These events will create new objects which didn't exist at the start of your game.

In a few moments, we'll be showing you how you can create objects in your own games. But first, there's a bit of jargon to get through.

Klik & Play uses the following terms:

Parent object

Generates your new objects on the screen. It's the asteroid which explodes, or the spaceship which fires the bullet.

Child object

Is the new object you're going to create. It's the rock fragment spinning away into space, or the bullet darting towards an enemy.

So much for the theory. Let's have a go at creating some of these objects for ourselves:

Creating a child object tutorial

First, select "New game" from the "File" menu to provide a blank screen for our experiments. Jump to the Level Editor by clicking on the "Frame 1" box with the right button, and highlight the "Goto Level Editor" option.

We're now ready to pick a parent object for our demonstration.

Select the "Heaven, Earth, Fire and Water" library from the list. It looks like this:



Now pick the "Sizzling sun" object from the shelf.



Move it over the centre of the playing area, and drop it into position with the left mouse button.

The next step, is to create a child object for our sun. We can do this with the help of the Event Editor. So without any more ado, select the "Event Editor" option from the "Game" menu.

We'll begin by defining an event to fire off our new object on the screen. The easiest option is to use the keyboard. Click on the "New condition" event and choose the "Mouse and Keyboard" icon with the right button.



When the menu appears, select "The Keyboard" and highlight the "Upon Pressing a Key" option.

You'll be immediately asked to press a key to be tested. Hit the spacebar to assign it to the event.

We'll now need to set-up an action which will shoot an object on the screen.

Move the mouse to the grid box just below the "Sizzling Sun" icon.



Hold down the right button and pick the "Shoot an Object" option.

You'll be asked to choose an object you wish to fire.

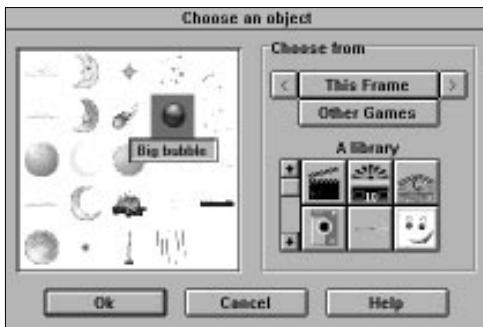


The object we'll be using is called "Big Bubble".

It can be selected by clicking on the "Heaven, Earth, Fire and Water" library.



and choosing the "Big Bubble" object.

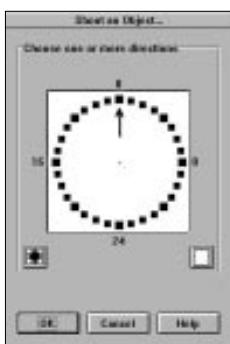


A new dialogue box will be displayed so that you can choose the direction of your new object.



Call the "Shoot in selected directions..." option to pick a direction at random.

This will present you with the following screen:



You can choose a random direction by clicking on the "Select All" icon.



Now repeatedly select the "OK" buttons until you get back to the Event Editor.

Enter the Level Editor using the appropriate option from the "Game" menu.

And have a look at the "Sizzling sun" object on the screen.

If you see an arrow icon in the bottom right corner you can proceed immediately to the next section.



If not, call up the "Preferences" option from the "Edit" menu, and select "Show Objects created within a game". The arrow will now appear.

Displaying and editing a child object

The downward pointing arrow indicates that the current object has one or more children:



You can display these children using the following procedure:

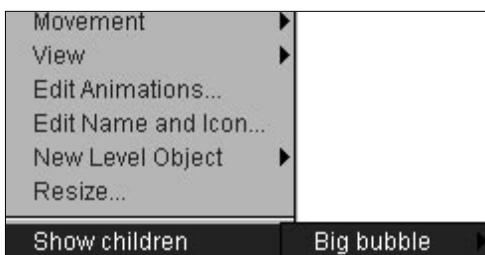
Click on the "sizzling sun" with the right mouse button.



As you can see, there's a new option called "Show Children" at the bottom of the menu.

When you select this option, you'll get a list of children objects created by the current

parent. At the moment, we've only defined a single child. So the menu will look like this:



If you click on the "Big Bubble" option, yet another menu will appear. This lists all the events which can generate our new object.



It can be selected to show the child object on the screen.



The bubble will now be displayed at the centre of the sun. It's marked with an upward pointing arrow:



You can edit this bubble using all the standard options. Select the bubble with the right mouse button, and you'll get a pop-up menu like so:



You can use these commands to change the position, appearance, and movement pattern as normal.

The "Hide" option is new. It lets you remove the big bubble from the screen when you've finished editing.

Note that it's perfectly possible for a child object to have its own additional children! If this happens, it will display both up and down triangles and its menu will hold the "Show children" and "Hide" menu options as well.

Another point to consider, it that if your child objects are very small, you may have trouble seeing them on the screen. Use the arrow marker as a guide to their position.

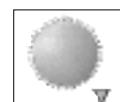
Now play the Level as finished and continually hit the space bar.

Summary:

- The up arrow indicates a child object.



- The down arrow marks out a parent object.



- Child objects are created from the Event Editor, using the "Shoot an Object" and "Create Object" actions.
- There's a "Show Objects created within a game" option from the "Edit/Preferences" menu which lets you turn the child and parent arrows on or off.

6.0 The Drop-down Menus

The Drop-down menus provide you with instant access to the many powerful features of the Klik & Play system. They're available from the Level Editor, Event Editor, and Storyboard Editors. Items from the menus will sometimes be greyed out. This is because they are not valid for the editor you are working in. For example, there is no need to be grabbing objects when you're in the Storyboard Editor.

Here's a full breakdown of the various options:

File Menu

The FILE menu lets you load and save your Klik & Play games from the disk.

New game

Removes the current game from memory, and allows you to start again from scratch. If you've made any changes, you'll be given the option to save your game before it gets erased.

Load game

Loads an existing game from the disk.

Save game

Saves your game onto your disk. If it's a new game a file selector will appear so you can enter the name.

Save game as...

Saves your game under a different name.

Save stand alone game

This special command allows you to save any games you make as standard Windows "EXE" files or Macintosh "Applications". This means that your games can be launched and run independently of the Klik & Play editor. Before you can save your game in this format, a license dialogue will appear. This explains the conditions under which your games can be distributed – see the Licensing Agreement at the beginning of the Klik & Play manual

After clicking OK from the license dialogue you'll be taken to a special file selector. From here, your game can be saved in one of two forms:

1. A normal application file which can be run direct from the Desktop. If you save using this system, Klik & Play will create these files:



- game.exe Double click on this to run your game from Windows (no ".EXE" for Mac users).
- game.gam The main game file.
- game.img All images from your game
- game.snd Any sound samples you've used. If no samples were used, then this file will not be created.
- game.mus Any music's used within your game. If no music is used this will not be created.

Saving a game in this format is great when you want to run games on your own hard disk. If you want to provide copies of your games to your friends you should use the second way of saving:

2. Save with installer. Your game will be saved out as an installable version. The files Klik & Play create are:

- setup.exe The installer program.
- setup.bin Data file for the installer
- game.dat Compressed game data

So you would save these files onto a floppy disk and then give the disk to your friends. They can then install your game by running "setup.exe". The installer will allow your friend to select the directory into which your game will be installed and then it will create all the files and an icon.

Before you save your game in this format, make sure you've given the game a title (see the Game Set-up option from the Edit menu). This is because the installer uses the name of your game.

Quit

Closes Klik & Play down, and returns you to the Windows/Macintosh Desktop. If you've made any changes to your game, you'll be given the option to save them before you leave.

Mac users also have the option to import PC games in this menu

Edit Menu

When used from the Storyboard, the Edit menu gives you a simple way of copying whole frames of your game from one place to another. The Level Editor deals with objects, and lets you "Clone" your objects several times on the screen.

Cut

Grabs the selected object(s) or frame(s) from the screen, and stores them in the Klik & Play clipboard. After they've been grabbed, they'll be removed from their old position.

Copy

Makes a copy of the highlighted object(s) or level(s), and saves them onto the Klik & Play clipboard. The originals remain untouched.

Paste

Moves the contents of the Klik & Play clipboard into your game. You can paste as many copies as you like.

Delete

Erases any selected object(s) or level(s) from the game.

Unselect:

If you've highlighted some items by mistake, this option will abort the selection.

Select All

Highlights every object or level in the game. Any locked objects will be ignored.

Preferences

Preferences lets you fine tune the Klik & Play system to your own needs. Each Editor has its own unique customisation features.

Storyboard/Level Editor Preferences**General Options**

These affect the entire Klik & Play system.

Show handy hints

Displays a helpful message whenever you move the mouse over a screen icon. After a while you'll become familiar with the Klik & Play system, so you may wish to turn this feature off.

Boot-up straight into the Storyboard Editor

Calls the Storyboard Editor whenever you load Klik & Play, avoiding the normal start-up screen.

Boot-up straight into the Level Editor

Calls the Level Editor whenever Klik & Play is run, bypassing the start-up screen.

Sounds Controls Klik & Play's sound system.**Play Music**

Tick this option to allow music to be played in your game. Click it off to silence the music completely.

Play Samples

If this option is selected, any sampled sound effects in your game will be played through your speakers (if connected). If you turn it off, any sound actions will be ignored.

Graphics mode

Klik & Play lets you get the absolute maximum out of your computer. If your video card is up to it, you can use any Windows/Macintosh graphic mode from 16 to 16 million colours.

You can choose between the graphic "drivers" which operate all the objects within

Klik & Play – something you will have done when you installed the system. The optimised routines which were specially written for Klik & Play give you super fast action from Windows/Macintosh, we recommend you use this all the time, unless you own one of the few video cards that aren't compatible with these fast drivers. If this is the case you must use the slightly slower Standard Windows/Macintosh mode.

Level Editor Preferences

These options alter the way your objects will be displayed by the Level Editor, and allow you to position them using a grid.



Lock objects

Locks selected objects into their existing positions, this stops you from selecting them and dragging them out of place.

Quick Backdrop

When you're editing one of your games, you can easily grab one of the backdrops by mistake. This option allows you to lock all quick backdrop objects into their current position. So no matter how hard you try, you can't move them accidentally.

Backdrop

Sticks all current backdrop objects in their existing location. You can free them up by turning this option off.

Active

Locks the starting positions of all active objects on the play area, and stops you from selecting them from the Level Editor.

Game

Stops the selection of game objects like scores, lives and counters.

You can use any combination of these options to lock selected areas of your game into place. This speeds up the editing process enormously, as it reduces the risk of time consuming mistakes.

Animate active objects

Animates an active object whenever it's selected with the mouse. You may find that active objects become hard to select when they keep animating, so simply turn this option off to keep them stable.

Create automatic icons

Normally, whenever you edit an object, Klik & Play will change its icon to reflect the new shape. Sometimes the results can be rather disappointing,

so you can deactivate this feature, and draw the icon yourself.

Show co-ordinates

This continuously tracks the mouse pointer as it moves across the play area. The co-ordinates will be displayed in a small box on the status line. When you select the pop-up menu of an object, the coordinates give you the hot-spot co-ordinate of that object.

Show objects created within a game

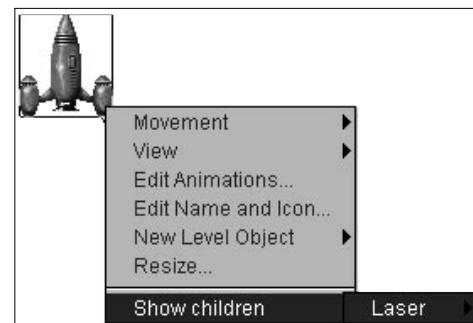
During a game new objects can be created. For example, bullets from a gun, explosions in a space game, random bonuses - all of these situations call for new objects during the course of a game. So these types of objects which are created during the game and not from the level editor when the game was initially laid out and designed, have to be editable in some way. When you select this option, any objects created during a game will become accessible within the level editor. They can be accessed in two ways (depending on how they were created in the first place):

Actual X,Y co-ordinates: Any objects created at specific X,Y co-ordinates will become visible in the level editor at exactly the place they were selected during the game's set-up.

Relative to another object: When objects like bullets are shot from a relative position of another object, they become linked to that object. Imagine a ship shooting lasers, the ship is the "parent" object and the lasers are the "children" objects. When the "Show objects created within a game" is selected, any "parent" objects will be displayed with a small arrow in their bottom right hand corner, like this:



To access the "child" objects you must select the pop-up menu of the parent object, at the bottom of the menu will appear a new menu option "Show Children":



Click on this and a list of children objects will be displayed in a sub-menu. Click on the child object you want to edit and then a list of situations will appear - these describe at what point during the game the objects will be created. Select the one you want and the child object will appear on screen, ready for editing. Now you can resize, change the animation and movements of the child object, and when you've made your changes select "Hide" from the child's pop-up menu to remove it from the display.

Note: If you move a child object from the position it appears, the child will take this new position as the place to appear during the game.

Grid

Lets you position your objects using a grid.

Grid

The grid provides a controlled way of moving objects around the play area. When it's activated, you'll only be able to position your objects in units of a single cell. If you try to move them somewhere else, they'll automatically jump back to the nearest grid line. Each cell is indicated by a single dot in the grid.

Before using these grids, you may find it helpful to set the hot-spot of your images to the top left corner of your objects. If you're positioning many types of objects, all with different hot-spots, things can start to get complicated. See Setting the Hot Spot of an object for more information.

**Snap to**

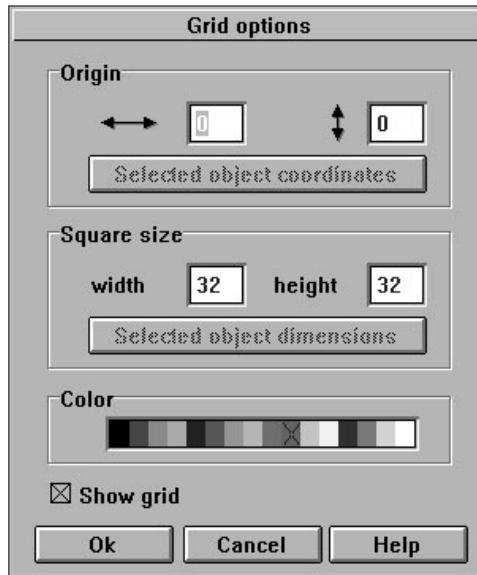
Tick this box to activate the grid.

Show grid

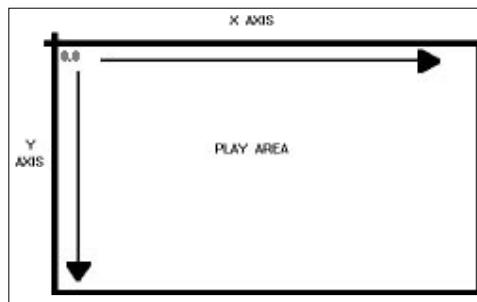
When this option is ticked the grid will be visible. If it's off, the grid will disappear.

Set-up

Sets the size, colour and origin of the grid.

**Origin**

Defines the starting point for all the coordinates used by the grid. It's normally set to the top left corner of the play area. Here's a simple diagram of the co-ordinate system:



If you want to start your grid from a specific position, it's easy to change the origin. Supposing you wished to place some blocks two pixels in from the left of the play area. You could do this by moving the origin to 2,0.

Selected object coordinates

If you've selected an object on the play area, you can click on this button to centre the origin on its current coordinates.

Square size

The grid is divided into small rectangular units called cells. As a default, each cell is exactly 32 points wide by 32 points high. You can change

these dimensions by typing in new values for the width and height, or by using the following option:

Selected object dimensions

The dimensions of the grid cell will be automatically generated from the selected object.

Colour

If you're having difficulty actually seeing the grid, you can change to a colour which will show up on the play area. Just click on a new colour from the palette selector, and the grid will change in front of your eyes.

More...

Jumps straight to the Preferences which are described earlier in the chapter (Storyboard / Level Editor Preferences)

Event Editor Preferences

These Display options set up the Event Editor screen.

Display horizontal Icons

Displays the control icons as a horizontal strip, just below the events. If it's turned off, the icons will be shown as a vertical bar to the left.

Display object's Icon

The events will list any objects described in a condition with an icon, e.g.:



Display object's name

The name of your objects will be used when displaying the events. You can even have a mixture of these two options, but at least one must be selected.

This slider allow you to control the size of the icons and boxes within the event editor. If you set a low density, the boxes will be large in size and much clearer. If they are bigger only a limited amount of row and columns will be viewable on screen. A high density setting gives you a great overview of all your events, but it makes it a little difficult to select and view icons.

Events

Display empty events from Step Through Editor

Shows any event, even if you haven't assigned any actions to them.

Alphabetically sort events

If this is ticked the events will be listed A-Z. The first letter of the first condition is used to sort the events. But be careful, if you've ordered events manually this option will lose you this order.

Create Default Events for new Objects:

Klik & Play automatically generates standard events for each object in your game. So a ball object will be set-up to bounce against your walls, and a spaceship will be tested to see if it's reached the edge of the screen. Although you can change these from the Event Editor, it's sometimes easier to start from scratch. You can therefore turn this feature off.

Game Run**Display Stop Button**

Produces a stop icon when testing your games. This can be selected with the mouse to stop your game in its tracks. If it's not ticked you can stop your game by pressing 'Esc' or Alt+F4 (**⌘ Q** for Mac users).

Game Setup

Adds some credits to your game, and determines how it will be played on the screen.

Title This title will be shown along the top of the window when your game is played. It will also be displayed by the "About" option from the game's Help menu.

Author If you've written a terrific game, why not brag about it. Type in your name, and it will be displayed automatically as part of the credit screen. Note that Klik & Play will also add the word "By" before your name.

Window Maximised on boot-up

When your game is booted up, the window it's displayed in will open up to the full width and height of the screen. Use this if you want your game to take control of the display.

Heading when maximised

Displays your program's title along the top of the Window. If it's omitted, a maximised game will use the entire screen for the display.

Game to include menu bar

Includes a menu bar along with your game. This bar allows you to select options directly with the mouse. If you turn it off, you'll still be able to access these features using the keyboard short-cuts. So you can press F2 to restart the game, or Alt-F4 to quit.

Menu displayed on boot-up

Displays the menu bar when the game is started, and lets the user select an option before playing. If the menu is not displayed on boot-up, it can be brought into view by pressing F8.

Border Colour

Changes the colour of the border area around your game. This option will only take effect when the game is played. It won't change the appearance of the editing screen at all.



Multi-samples

If multi-samples is ticked Klik & Play can mix samples together during a game, as opposed to the normal single sample playing which is standard for Windows/Macintosh. When Klik & Play mixes samples it has to do the mixing first before it plays the newly merged sound, this can take a small amount of time, so some games will benefit from this system and others will be better left as single sample games.

**Panic key**

Hit this key to hide the game's display, great for looking busy when your boss walks in!

Players

From the dialogue that can be called up with this button, you can define how each player in your game is allowed to control their on-screen characters. These "defaults" can be changed by the users during the game using a similar dialogue. You can also define the default score and number of lives for all players.

Create Game Instructions

Lets you type in some instructions which will be displayed from your game's help menu. When it's called up, you'll get the following dialogue box:



Click on the selector bar to choose the type of file you want to create.

“Text (.TXT)”

will create and display your instructions from Windows Notepad. Mac users can also create a similar text document

**“Write Document”**

will call Windows Write, and allow you to generate fancy documentation for your game.

**“Helpfile (.HLP)”**

will let you use a standard Windows helpfile for your games. These can't be created directly from Klik & Play. You'll need a separate third party program to do this.

Change Icon

Changes the icon used to represent your game. If you've saved your game as a stand-alone program, this icon can be displayed on the Windows/Macintosh desktop. Selecting this button will bring up a cut down version of the standard Klik & Play Picture Editor.

The options are exactly the same as those we've previously explained in Section 1.2. But since the icon is destined for Windows/Macintosh use, you can only include a maximum of sixteen colours in your icon. So the palette window reflects this.

Level Setup option

The Storyboard editor makes it easy to create vast multi-level games. Each level can have its own title, background music, password and play area. These controls allow you to customise your games still further.

Selecting Level Set-up brings up the following screen:



Title Here you can enter a title for the current level. The title will appear in the top line of the window when your game is run.

Password

Each level can have its own individual password. So when the player finally reaches level 99 of your space adventure, he can jot down the password and jump straight in at level 100!

Play area size

The size of the play area doesn't need to be 640 by 480 pixels. It can be anything you like! You can adjust the size by typing in a new width and height for your play area. It's easiest to do this before starting the design of the level, especially if you're intending to reduce the size.

Objects Menu (Level Editor Only)

Affects all the objects in your game, and changes the way they will be saved, loaded, and displayed by the Level Editor.



Show objects

In a Moveable Window

Displays the Objects in a standard window, which can be moved around, and re-sized as required.

In a Fixed Window

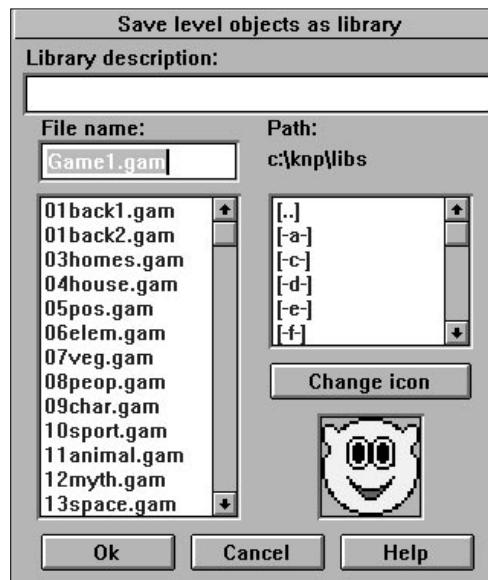
Creates a window for your objects near the top of the Level Editor. You can scroll through the objects using the arrow icons to the right.

Pick objects from a game

You may have come across games which use new objects that aren't in your standard libraries. This option allows you to grab these objects into your own games. When it's selected, the chosen game objects will be loaded into the Object Shelf, ready for use.

Save game as a library

If you've created your own objects, you can save them into a new library with this option. They'll now be at your fingertips, whenever you load Klik & Play. Here's the save library dialogue you'll see when you select this option:

**Library description**

Any text entered here will appear as handy hints when you move over the new library in the editor. It's important to make this as clear as possible so that other users will understand what your new library is about.

Filename

The filename the new library should be saved under. Use standard eight characters with a ".GAM" extension. Without this extension Klik & Play will fail to recognise the library.

Path

Shows the directory where your library will be stored.

Change Icon

Changes the image that appears in the library list. So if you've created a bunch of flower objects, you can draw a nice bowl of Petunias for your icon. (See Editing an Object's Icon about how to use the various drawing options.)

Game Menu

Let's you call up the various parts of Klik & Play and run your games. Depending on your current location, some options may be greyed out, and therefore cannot be used.

Storyboard

Jumps to the Storyboard Editor

Level Editor

Calls up the Level Editor

Step Through Editor

Runs the Step Through Editor

Event Editor

Goes to the Event Editor

Jump to Level

Loads the chosen level into the Level Editor (only selectable from the Level Editor)

Play Game as finished

Plays the entire game from the start (only selectable from the Storyboard Editor)

Play Level as finished

Plays an entire level. (Only selectable from the Storyboard and Level Editors. You must highlight the level you want to play as finished when you access this option from the Storyboard Editor)

7.0 Playing a game

Your Klik & Play games are played in a standard window on the Desktop. This window can be moved around, and resized to your precise requirements.

Along the top there's a menu. This can be removed at any time and you can set-up your game so that it doesn't display this particular menu.

We'll now have an in depth look at the menu options that appear in a finished Klik & Play game:

Game

New Game **F2** **⌘ N**

Restarts the Game from the start beginning.

Password

Enters an optional password to jump to a new level.

Pause **Ctrl+P** **⌘ P**

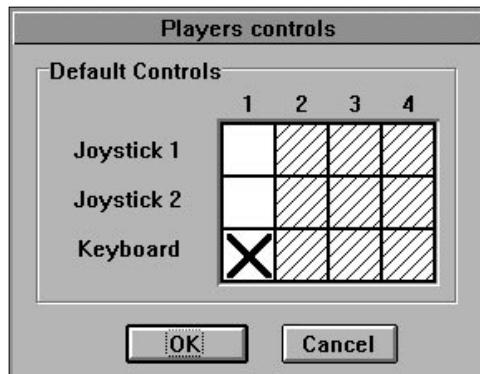
Pauses the game, and displays a dialogue box like so:



Click on "Continue" to resume.

Players **Ctrl+Y** **⌘ Y**

Presents a dialogue box which allows you to select the control systems used by each player. Every player can be assigned either to a joystick (if there are two), or the keyboard.



Click on a box to change the options.

Quit**Alt+F4****⌘ Q**

Returns you to Klik & Play or Windows/Macintosh Desktop as appropriate.

Options

Play Samples**Ctrl+S****⌘ S**

Turns the sampled sound on or off for the current game.

Play Music**Ctrl+M****⌘ M**

Toggles the music on or off for your game.

Hide the Menu**F8****⌘ D**

Hides the menu line from the screen. You can now call up the options using the keyboard short-cuts. Press F8 again to re-display the menu.

Help

How to play**F1****⌘ H**

Displays an optional help file created by the author of the program.

About

Displays a user defined credit box.

Starting a new game

You can abort the current game and start a new one by either selecting "New game" from the "Game" menu or by hitting F2 (**⌘ N**) from the keyboard.

Leaving the game

You can leave the game at any time by pressing Alt+F4 (**⌘ Q**) or selecting "Quit" from the "Game" menu. If you've run the game from the Level Editor, you'll now be returned to the main screen. However, if you've run the game from the Storyboard editor, or the Title screen, you'll be returned there instead.

Removing a game from the screen



Most Klik & Play games have a panic key assigned to F5. This removes the game from the screen, displaying whatever was behind it. You can now get on with some serious work, or at least look busy when the boss walks in. When he's gone, you can press F5 again, and continue with your game.

Reading the game instructions

Many games have instructions and credit screens. These can be accessed from the "Help" menu or by pressing F1, just like other applications (Mac users: **⌘ H**).

Toggling the sound effects

The sound effects can be turned on or off during the game. The Options menu lets you toggle either the sampled sound or the music. If an option is turned on, you'll see

a tick to the left of the item.

If you want to disable the sound effects more permanently, you can also turn them off straight from Klik & Play. Select the "Preferences" option from the main "Edit" menu, and click on the Play Music or Play Samples boxes as required.

8.0: History of Gaming

The good old days?

Way back in what many older gamers think of as "the good old days", playing computer games was brand new and though it seems silly these days, the mere fact that we could control pixels on our screens was a revelation. Classic games like Pong, Space Invaders, Defender, and Galaxians packed the arcades with eager gamers and blazed a trail which countless thousands of games were to follow. A whole new entertainment medium was born.

The bad news was that though the players were having a ball, most of them could never hope to create their own computer games. So difficult was it to program the early arcade machines and the first home computers that budding coders could succeed only by dedicating thousands of hours of study and effort to learning almost incomprehensible machine level languages. Eventually, the word "programmer" became synonymous with the image of a "crunch-head" sitting at his screen long into the small hours staring at unending streams of gobbledegook which only a few could decipher.

For a home user to break into the world of games programming, he or she would have to lock themselves away with a pile of manuals and one of the few crude coding tools then available, re-emerging only after an exhausting struggle with their intransigent digital sparring partner. Only the most enthusiastic survived, and the vast bulk of computer users were left to dabble in much less powerful and scarcely more friendly high level languages such as Basic.

As 8-bit machines gave way to 16-bit and eventually 32-bit processors, the task became even harder. New demands on sound and graphics, hugely complicated C compilers and even more complex Assembler programming left the rest of us more and more out in the cold. If you wanted to paint a landscape, take a photograph, write a book, or enjoy just about any other creative pursuit, you could have a go with the minimum of fuss, regardless of your training or expertise. Programming, however, was surrounded by a tall hedge of very thorny problems.

Klik & Play changes all that. In a stroke, this revolutionary package sweeps away the barriers between home users and the programming world, laying open to everyone the power of Windows and the opportunity to put your ideas for your perfect game into practice and onto the screen. Klik & Play represents a new generation of programming software because it removes the need to learn to program and gives you the chance to see your graphics and hear your music and sound effects in action. Quite literally, all you have to do is Klik and play.

What's the catch?

There isn't one! Have you ever drawn a picture using one of the PC's/Macintosh's many paint packages, or sampled a few favourite sounds using your sound card? Yes? Want to put them in a game? You can do it in minutes! During testing, Klik & Play was used to create complete games in hours, sometimes even during long haul transatlantic flights, and you can do it too.

Put simply, Klik & Play is the first package ever to offer a level playing field for the non programmer. If you can picture a game in your head, you can make it happen on your PC/Macintosh. If you have an idea for a fun education game for your children, they could be playing it tomorrow. Imagination is the only limit, because Klik & Play supplies the rest.

Game design

The best way to get started with Klik & Play is to work your way through our tutorials, then dive in and have fun. You'll make mistakes to begin with, but by asking yourself "what if ... ?" questions, then answering them for yourself, you'll learn how to create your own effects and your own style of gameplay. There are just three simple rules to follow:

1. Don't be afraid to make mistakes - they can teach you more than anything else.
2. Don't worry if your first effort at a game is truly awful - you'll be surprised how quickly you get better at it.
3. Have fun!

Once you've become familiar with the way Klik & Play works and you've found out just how easy the package is to use, it's time to sit down and begin your first project. Starting a game from scratch with no idea how it will look at the end is great fun, but for your first proper project you should try to follow the same design path taken by every major software house.

STEP 1: The Big Idea

This is the most important stage in any game's design. The idea you start with will shape the way the game develops and how it will finally appear, so take some time out to sit down and think about it.

Inspiration can come from existing games which you might have thought had a great theme but could have been better, or from just about any source you like. How about a game about baking a cake in the middle of a busy domestic day without letting the baby crawl up those step ladders the painters left behind? What about a dark cyberpunk adventure game in the Beneath a Steel Sky style, or a detective game based on classic films such as The Maltese Falcon? You can use films, TV, books, or day to day situations as your muse, always safe in the knowledge that with Klik & Play you can not only wish for such a game, but deliver the goods as well.

STEP 2: Decide on a game style

The idea you come up with will sometimes determine the style of game you will produce, but you can change this at any time. A racing game with your own subtle twists will have to be created in the racing style, but a game about baking a cake can be a platform game, a Monkey Island-style point and Klik adventure, or a shoot-'em-up.

At this stage you should try to see in your mind just what the game will entail and what general elements it might involve. Let's call our example idea Cake-tastrophe (I know it stinks, but that's the fun of it). We'll have to base it in a house, and a house has more than one room, so we know we'll need several levels or locations. We also

know that you can move from one part of a house to another without having to shoot an end of level guardian, so shoot-'em-up style is out, and as platform games usually have level goals before you can proceed, they're out too. No cars or spaceships are involved (not in my house at any rate), so we seem to be left with the point and Klik style.

As Cake-tastrophe will probably appeal to younger children as well, it should be educational but fun, so the point and Klik style fits well, allowing for gentle exploration interspersed with bouts of frantic action. We have a game, let's proceed to create it.

STEP 3: The Storyboard

A storyboard can be anything you like, from a written list of what you want to happen in the game to a full blown set of drawings, but you should always make one. At this stage in the design of a game, ideas of all kinds will be flying around in your head and you'll probably already be thinking about some of the more detailed elements of the action. This is fine, but for now just write the detailed stuff down somewhere and concentrate on the general plot.

You have to decide how many players you will need, what the game's general goals are - in our case to bake a cake without burning the house down or letting the baby pour paint all over the carpet - and how the plot will unfold. For our example, we'll start in the kitchen, a location ripe for comic exploitation, then perhaps add a living room, bathroom, garden, and the like. All of these locations have their own temptations for baby and their own domestic disasters waiting to happen.

For an edutainment game, we would want to highlight the dangers of ironing boards and electrical power sockets, and for the action side of things we can anticipate a few hair raising moments as our player tries to retrieve the baby from a broom cupboard before the cake mixture burns to the bottom of the oven. Adventure elements can be introduced as our player gradually finds the ingredients needed for a chocolate cake scattered around the kitchen cupboards, and so on and on.

STEP 4: Sound and graphics

For most games, you will find at least some of your graphics and sound can be grabbed straight from Klik & Play's libraries of backdrops, sprites, and sound samples. To add your own touch, however, and create that original look unique to Cake-tastrophe, you'll have to roll up your sleeves and get creative.

The modern games player is used to being spoiled in this department, and many a good game with a superb idea behind it can founder at the first impressions stage when your audio-visuals fail to meet expectations. If you are a dab hand at drawing, the graphics side of things will be easier for you, but even the artistically challenged among us can create beautiful games.

You could involve an artistic friend, or just invest in an inexpensive hand scanner. Our domestic game could even feature graphics and sound from your own house. All you have to do is photograph the locations, scan them in, and either use them as they are or base your own drawings on them. Sound can be sampled using your sound card, so washing machines, blenders, vacuum cleaners, and even baby

noises can be sampled directly from real life and used in the game.

Take a lot of time on this stage of design and try to get the sound and vision just right.

STEP 5: Gameplay

Creating a boring game is a waste of time, as is creating a game which is too easy or too difficult. Sit back, think about your audience, and try to fit gameplay to the correct level for them.

An edutainment game will require gameplay which involves anything from pattern matching to numeracy skills, general knowledge, question-based puzzles, and the rest, all of which have to be more or less right for your audience. If you are designing a game for your own children, this should be easier, but you may have to ask a friend to test the game on their kids so that your own don't know it inside out by the time it's finished.

Action games which call on quick reactions will have to play at about the right speed with a fine balance of danger over opportunity, and adventure games will need a good plot, puzzles pitched at the right level, and a perhaps a touch of relevant humour. There are many elements which go together to make good gameplay, and it is vital that you find a good balance.

Probably the best way to fine tune your gameplay is at the testing stage (see under "Collaboration" below), but playing some of the better games of the same type you wish to produce is as good a guide as you'll get.

STEP 6: Klik & Play

You have an idea, a game style, a plot, and the sound and graphics to match. It's time to fire up Klik & Play and put them all together in a game for your children, your friends, or the best seller charts. The steps outlined above may seem a bit long winded, but the time and effort you spend before actually using Klik & Play will shine through in the quality of the final game.

Getting down to it

Let's take a quick stroll through the creation of our imaginary game, Cake-tastrophe, and examine on the way some of the factors you'll need to take into account in any of your own projects.

Our first location is the kitchen, so we'll need a kitchen backdrop image. We'll also need a player object, a baby, and a variety of obstacles and active objects. The baby will have to be an animated sprite, and as this will be the focus of much of the game, it should be as well drawn as possible. We'll also need several animation's attached to the baby for crawling, climbing stairs or ladders, sitting, crying, smiling, and so on.

The player can be a male or female character, or you could borrow the Roger Rabbit or Sleepwalker idea of having a cartoon animal look after our youngster. The sprite itself can be a simple walking animation from the Klik & Play libraries, but if you're

really adventurous, you could have a friend photograph you in three or four walking positions, then scan the photos (if you have the money, a video camera and grabber is even better), and either create your own animation from these in Klik & Play's animation editor, or use one of the PC's/Macintosh's more expensive art packages to "tween" the images for a quick and easy animation.

What we've just looked at is the fabled "rotoscoping" technique of basing game animation's on real life people, and if it's your game, there's no reason why you shouldn't star in it!

Once the basic graphic elements are present, you'll soon realise that you have to distinguish between active and inactive objects. The backdrop should usually be inactive, definitely not an obstacle, or nothing will move across it due to always being in collision with it. This, however, presents the problem that you can't then click on a door in the backdrop and have the player move to another room.

In most cases it is enough just to use the event editor to check for when the pointer is within a specified area of the screen, but if your backdrop scrolls in any way, this is impossible. To get around this, you could cut a hole in the backdrop where the door is, save the door image as a brush, and load it up again as an active object, perhaps even as an animated door which opens and closes as you click. This distinction between objects which are used purely for graphical effect and those which have an active part in the game is very important, and you should always keep it in mind.

Your player also needs to know the difference between active and inactive objects, and if you want to avoid having to click everywhere just to find out which objects can be used, you'll have to use a simple trick used by countless graphical adventures. The event editor lets you test for when the mouse pointer is over a particular object, so why not have the name of the object appear at the bottom of the screen when the mouse is over that object? This is a simple but effective trick and one which will improve the game's playability.

As you add active objects, try to write down on paper all the things you want them to do, such as what happens when they leave the playfield, or collide with the various obstacles in the scene, and don't add more until you've decide what the first one will do. If you skip this procedure, you'll end up jumping back and forward between the level editor and the event editor adding collisions and other actions willy-nilly.

Testing times

Another feature of active objects which you should try to plan on paper is the use of each object's three built in alterable values, which you can think of as variables if you've ever come across the term. By changing the value held in A, B, or C, it is possible to test for all sorts of situations, and the use of Klik & Play's timer objects gives you almost infinite variety.

For example, our cake object must be made to appear as soon as we have put all the ingredients in a mixing bowl, and it should change graphically as time goes on to represent the baking process. For the first test, simply add one to a counter for each ingredient safely deposited in the bowl until the proper number had been reached. Testing for this number is easy, and you can tell Klik & Play to make the cake mixture

visible as soon as it is reached.

Once the mixture is in the oven, you can start a timer to run in real time, thus adding a race against the clock to our game, and as each of the baking stages is reached, change the mixture sprite to show a gradually evolving cake. If you want to add a bit more, test for the last minute of baking time, and when this expires add some smoke coming from the oven which gradually increases as time goes on.

Uses for these numbers, and tests you can perform on them, are almost limitless. A wargame might contain sprites with three alterable values - attack, defence, and manoeuvrability - which can be used to test an object's attack against another's defences or whether it can move where you want it to. What should be clear is that even in a simple game like ours there could be dozens of counters and alterable values in use at any one time, and keeping track of them on paper will help avoid confusion.

One last tip on using values and counters, but one of the most important of all, is the use of prime numbers. For those of you who were asleep in maths lessons at school, a prime number is one which can only be divided equally by itself and the number one. Some examples of prime numbers are 3, 5, 7, and 11, and their most useful function is that, when added together, they always make an even number which no two other prime numbers could add up to.

If you use only prime numbers in a particular alterable value, it's easy to figure out which numbers have been added together. For example, if you use numbers to denote objects which are put inside a sack, the sack object can have one of its alterable values set to 16, and you know that the numbers 5 and 11 were used to reach that figure. If these numbers represent a sandwich and a length of rope respectively, you can then tell that the sack contains these two objects, a fairly complex test which you've accomplished using only one alterable value.

Scores on the doors

Scoring is one of the most important elements in any game as it forms both the impetus to do better and the reward for a player's efforts. Klik & Play has a special score object which can be added to your main game screen very easily, but there are many other ways of giving the player his or her rewards.

The standard score object is great for games which involve shooting, but if your player's progress depends more on completing certain tasks, a little thought can go a long way and really make the player feel as if something has been accomplished. Combining the two is even better.

In Cake-tastrophe, score could be accumulated for ingredients collected and the successful baking of the cake, but at other stages in the action, bonuses should be used to add a little variety. For example, if the baby heads towards the ironing table and the player manages to stop him or change his direction, you could have a screen pop up to denote the successful mission, highlight the dangers of leaving irons on boards when they're not being used, and award the player a domestic safety certificate.

By showing these awards in the player's inventory or at the bottom of the screen and making possession of certificates a prerequisite for progress, you can add variety to your scoring system, push the player on towards greater things, and make the reward something worth waiting for all in one easy action. A single test through the event editor is all it needs to set up this sequence of events, but the final result will be much more impressive.

Surprise, surprise!

The element of surprise, if used intelligently and sparingly, can add some real fizz to a game. Our Cake-tastrophe game is developing along lines which, though well thought out, would nevertheless appear a little too linear in actual play. It is easy and tempting to have every element of the game governed by logical rules or a strict timetable, but players will quickly tire of this sort of one track gameplay. Even Space Invaders has a surprise element in that you can never tell which alien is going to shoot next or when the next flying saucer will appear.

Surprise can be anything the player can't anticipate, and if spiced with a random element, it can make a game shine. For example we could set up a condition whereby there was a 25 per cent chance every three minutes of the telephone ringing, or Pudsey the cat running through the kitchen and colliding with a random object. This sort of thing can be set up using counters under the event editor and can give the game more variety and less predictability.

Use these random elements sparingly so that the player doesn't feel that too much is out of his or her control, but do use them, and if possible turn them into opportunities for a quick bonus. You could add to a player's score when they answer the telephone, but though this can seem a bit generous, it isn't if the phone rings at a bad moment and the player has to make a snap decision between answering the phone and shooing the cat away from the sleeping baby. Do you go for the points and risk the cat wakening baby, or do you play safe?

Forcing a player to make these sort of decisions on an unpredictable basis, then rewarding good judgement with bonus scores adds a lot to a game's playability.

Collaboration

It might seem strange that though we've just provided the perfect tool for you to create your own private dream game, we positively encourage you to involve other people, but the benefits of collaboration are innumerable.

At the design stage, the opinion of a fellow games player can help give you an objective view of your idea and the way you plan to put it into practice. So-called "brainstorming" sessions when you sit down with a friend or two and just shout ideas out and write them down without worrying how good or bad they are can open new avenues of thought and lead you in new directions.

During game creation, it is always a good idea to have someone on hand to test your designs, artwork, or gameplay ideas just in case you're the only person in the world who finds them interesting or funny, and when the game is ready for de-bugging you should always have at least one other person play the game from start to finish. They

are bound to try to do things - or want to do things - that you haven't anticipated, and can usually find weaknesses that you didn't know were there.

A team of three people, the other two perhaps specialising in graphics and music, is best, but even if you can't find anyone interested enough to put in some of their own ideas, you should at least have other people try the game before it is unleashed on the general public or sent to a software house.

If you have access to a modem and the CompuServe service, or a bulletin board with Internet e-mail facilities, you can upload your game to the Klik & Play area on CompuServe where you can invite other Klik & Play users to take a look and provide some feedback. This could also be a source of inspiration and the swapping of ideas, tips on getting the most from Klik & Play, and the latest software updates.

One invaluable tip before sending your game to anyone you don't know is to seal the game in a padded envelope and post it to yourself, a relative, or a solicitor. So long as the post mark bears a legible date and the envelope remains unopened this constitutes proof of your copyright and can protect you against the sharks of this world.

Here's one we made earlier

Below are a few suggestions for the sort of games you might want to create with Klik & Play. Each is based around one of the standard game genres, but we've tried to choose an unusual theme to show you how the original creative spark - that ingredient which only you can supply - makes all the difference.

Game type: Platform

Best suited to: Any action game in which you have to go up, down, or sideways

Theme: Ladder climbing game based on Parliament and your gradual progression through the ranks. Rewards can be promotion to the Cabinet, fact finding tours of exotic locations, knighthood's and so on. Penalties can include transferral to a less glamorous department, loss of chauffeur-driven car, de-selection, and so on.

Game elements: Leaping over desks, collecting paper clips and files, avoiding aggressive interviewers, finding babies to kiss.

Game type: Shoot-'em-up

Best suited to: Any situation where you - er - shoot things

Theme: Hamlet. Yes, Hamlet, the Danish bloke. Steer your hero through his madness, avoiding the slings and arrows of his arch enemy, Outrageous Fortune. Use each act of Shakespeare's play as a level, and break each down into the more dramatic scenes. With Rosencrantz and Guildenstern as baddies, you'll always have to watch your back!

Game elements: Slings and arrows, skulls, sword fights, you name it.

Game type: Wargame

Best suited to: Guess what?

Theme: You are General Percy Thrower, ace gardener and scourge of weeds, but you face your greatest ever threat - Commandante Thistle and his hordes of flower-strangling crack troops. The weeds will come at you from the air, underground, and in the fur of seemingly innocuous animals. From parachuting seeds to massed phalanxes of heavily armoured wild irises, you'll have to develop cunning strategies to out-fox the wily weeds and save your precious flower beds from extinction.

Game elements: On one side, a bewildering array of deadly weeds, all with their own highly developed methods of attack. On the other, a small quantity of weed killer and a limited amount of cash to buy the various pieces of equipment needed to fight the good fight.

Game type: Point and Klik

Best suited to: Graphical adventures, edutainment

Theme: In the sewers, no-one can hear you scream... You are the sanitation department's top trouble shooter, and only you can save the city from the sudden collapse of its waste disposal system. You have only 24 hours before the city goes into toxic overload, and there are miles and miles of sewer. Is this just a catastrophic coincidence, or are there criminal elements at work below the busy streets?

Game elements: Gloomy graphics, tension at every sewer junction, big rats.

Game type: Race and chase

Best suited to: High speed action

Theme: Pilot your remote exploration buggy across a pitted lunar landscape in search of rich mineral resources, stranded starship crews, alien artifacts, and Sigourney Weaver. Player two has a buggy too, so you have to be quick, and you have to earn enough money to soup up your own buggy, equipping it with all manner of specialised equipment.

Game elements: Physical obstacles such as yawning chasms, attacks by unknown aliens, competition with the other player, economics.

These are just a few of the games and game types you can create with Klik & Play, and it's up to you to decide whether they'd make a decent game. What they should demonstrate is that you can make a computer game from almost any situation, whether from life, a movie, or your own imagination, and have great fun in the process.

Speed, speed, speed

One of the most difficult elements of gameplay to judge while developing a game is speed, which can be limited both by the power of your machine and the game itself.

There's no point in creating a game on a DX2 66MHz machine with a fast graphics card if it's going to be played by people with 386 or vanilla 486SX PCs. The likely

outcome is that the game will be too slow on their machines. On the other hand, if you create an action game on a 386 it may run so fast on a DX2 that it will be unplayable. Try to stay somewhere in the middle, and if you have your doubts, take the game along to a friend's house or a computer club and check it on another machine.

In addition, it doesn't make much sense to create a game which utilises Truecolour graphics, because on most machines a game like this will run very slowly and use a lot of memory. Even games utilising the 800 by 600 resolution could come a cropper, because many monitors are less than completely happy with this resolution. You might not want to play safe, and if you feel that your idea demands a higher quality display, by all means go ahead, but remember to make any non-standard requirements clear when you upload the game or send it to a shareware library.

If sending a game to a software house, the standard 640 by 480 resolution in 256 colours is best, as commercial publishers will usually want to stick with something that they know works on the majority of modern Windows PC's/Macintosh's.

Try to keep memory requirements as low as possible by doubling up on samples (using the same sample for more than one event), careful use of graphics for the best effect with the smallest files, and using only as many active objects as you absolutely need. Active objects use up more memory than counters or non-active graphics, so keep this in mind during design.

Finally, don't forget that we are eager to look at any games you might have finished, so send them to Europress Software at the following address:

**Europa House
Adlington Park
Macclesfield
Cheshire
SK10 4NP**

If you give us permission, we'll put them on the Klik & Play web site area, from where users from all over the world will be able to download them. This means that you don't need a modem to share your game with those who do. If you want to visit the Europress web site use this address:

<http://www.euopress.co.uk>

9.0: Hints and Tips

Q: I find it difficult to position a backdrop so that it is in exactly the right position. What do I do?

A: *Go to the preferences option on the edit menu and select snap to grid, it will then be easier to position big objects.*

Q: My objects don't seem to move or bounce properly. Why?

A: *Your backdrop may be set-up as an obstacle, which means your active objects will collide with it. Double click on the backdrop object, select obstacle from the pop-up menu, and make sure that the "no" option has a tick beside it.*

Q: My race car goes in circles, but it doesn't actually turn to face the new directions.

A: *The direction animation hasn't been set properly. Just double click on the car, select edit animation's, choose how many directions you want to create (32 is best for a smooth rotation), and click on the rotation gadget at the bottom of the animation editor screen to create the other views of the object.*

Q: When in the animation editor, I tried to import a section of a picture, but every time I grab it, Klik & Play picks out lots of little sections and I end up with lots of little frames.

A: *If box mode is set, Klik & Play will look for areas it can cut out, a feature which is great if you have a screen full of frames in little boxes and you want to capture them all at once. For single captures, turn box mode off by going to the capture menu and deselecting the box images option.*

Q: Some of my animation's stop after a very short time. What's wrong?

A: *They haven't been told to loop. Just set this option using the animation editor and the animation will continue until you tell it to stop. A slider in the top right hand corner will be set for one or more repeats of an animation. Slide this all the way to the left until the display reads "looping".*

Q: I sometimes find I can't select an active object if it's moving.

A: *Go to preferences in the Level Editor and deselect the button which says "Animate active objects".*

Q: When the last life goes and my "game over" sample starts to play, it gets no further than the first "g" before repeating continuously. What can I do?

A: *The check that tests to see if all lives are used up always comes up true after the last life is gone, so you need to tell it to play the sample only once or it will try to play it every time it checks the condition. Do this in the event editor by setting the "Only one action while event loops" condition.*

Q: I want to set up a random event where there's a 25 per cent chance that the phone will ring every three minutes. How do I do it?

A: First, add an invisible counter to your level. Next, in the event editor, add a timer and set it to "Every 3:00'00", then under the counter object add a new action which sets the counter to "RANDOM 4". Now add a new condition which tests the counter every three minutes for "lower than or equal to 1", and add to this condition the action to play a phone sample. Klik & Play will generate a random number between 1 and 4 every three minutes and store the value in the counter, then test the value to see if it is 1 or less. If this is true, your sample will be played.

Q: How do I make a set of aliens shoot down the screen in a random fashion?

A: Add a condition in the event editor which picks one alien every couple of seconds, then add an action under the alien object column which instructs Klik & Play to shoot an object. Just specify which laser bolt to use and the direction it will go in (usually down the screen).

Q: How do I know when an explosion is over, and how do I get the explosion sprite off my screen?

A: Make sure the explosion animation doesn't loop, then insert a condition to test that it is over, and add an action to destroy it if this is true.

Q: Why doesn't my score object update?

A: To change the score, find the actions in the event editor which would cause a score increase, such as the collision between an alien and one of your missiles, then put an "add to score" action under the player column. You can choose different score increases for the different scoring events, or even decrease the score if you like.

Q: I need four or five alterable values for a complicated board game!

A: Simply use a counter object, which can be hidden from the player, and treat it in the same way you'd treat the three built in values. If you need extra alterable values for a lot of objects, it's best to use a ghost partner for each active object and use the new, but invisible, active object's alterable values. This will use up more memory, but it will solve your problem.

Q: Why can't I stop the game when it's running in step-through mode?

A: Because you haven't pressed your keyboard's Escape key.

Q: I want to copy a whole level from one of my games to another. How can I do this?

A: Go to the storyboard editor, click once on the level you want to copy, then choose the copy option from the edit menu. Now load the new game and select paste.

Q: How do I get a spaceship to fly across the top of the screen and shoot down the screen at my player's ship?

A: Set up a new condition which sends an alien across the screen at timed intervals, then go to the attacking ship's column and add an action to aim at the player, then one to fire the missile.